ORDER NO. AD9712165C3

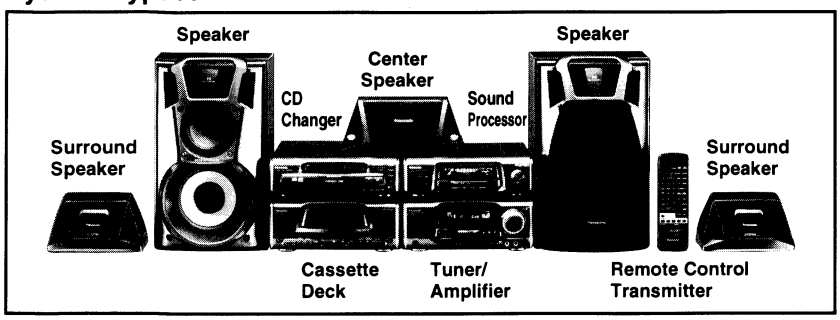
Service Manual

Stereo Cassette Deck

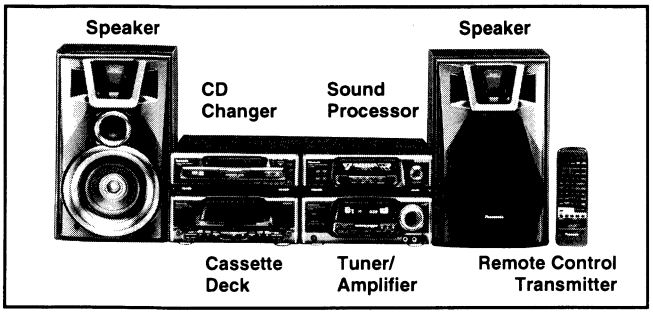
Cassette Deck

RS-EH600

System Type A



System Type B



Colour

(K) ..... Black Type
(H) ..... Gray Type

Areas

(GK)..... China.
(GCS) ... Asia, Latin America, Middle East, Africa and Oceania.

DOLBY B NR *1

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

System	System Type A				System Type B
	SC-VC968	**SC-VC868**	**SC-VC848**	**SC-EH501**	**SC-VC838**
Colour	(K)	(K)	(H)	(K)	(H)
Sound Processor	SH-EH600	SH-EH500	SH-EH500	SH-EH500	SH-EH400
Tuner / Amplifier	SA-EH600	SA-EH500	SA-EH501	SA-EH501	SA-EH400
CD Changer	SL-EH600	SL-EH600	SL-EH600	SL-EH600A	SL-EH600
Cassette Deck	**RS-EH600**	**RS-EH600**	**RS-EH600**	**RS-EH600**	**RS-EH600**
Front Speakers*2	SB-VC968	SB-VC868	SB-VC848	SB-EH501	SB-VC868
Center Speaker*2	SB-PC600X	SB-PC600X	SB-PC600X	SB-PC600X	–
Surround Speakers*2	SB-PS600X	SB-PS600X	SB-PS600X	SB-PS600X	–

*1 : Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol DD are trade marks of Dolby Laboratories Licensing Corporation.
*2 : Made in Singapore

AR-2 MECHANISM SERIES

Specifications

Deck system : Stereo cassette deck
Track system : 4 track, 2 channels
Recording system : AC bias
Bias frequency ; 100 kHz
Erasing system : AC erase
Heads :
DECK 1 (Playback head) ; Permalloy head
DECK 2 (Recording/Playback head) ; Permalloy head
(Erasing head) ; Double gap ferrite head
Motors :
DECK 1, 2 Capstan drive ; DC servo motor
Tape speed : 4.8 cm/sec.
Wow and flutter : 0.16 % (WRMS)
Fast forward and rewind times : Approx. 110 seconds with C-60 cassette tape

Frequency response (Dolby NR off) :
TYPE I (NORMAL) ; 20 Hz–16 kHz (DIN)
TYPE II (HIGH) ; 20 Hz–16 kHz (DIN)
TYPE IV (METAL) ; 20 Hz–16 kHz (DIN)
S/N (Signal level = max recording level, TYPE II type tape) :
NR off ; 56 dB (A weighted)
Dolby B NR on ; 66 dB (A weighted)
Input sensitivity and impedance :
REC (IN) ; 400 mV/23 kΩ
Output voltage and impedance :
PLAY (OUT) ; 280 mV/360 Ω
Dimensions : 287 (W) × 118.5 (H) × 277 (D) mm
Weight : 2.0 kg

Notes : Specifications are subject to change without notice.
Weight and dimensions are approximate.

⚠WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

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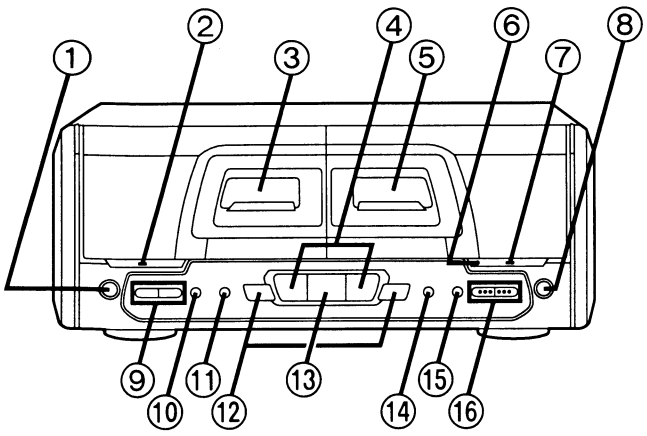
Note :

For information on " Accessories", "Installation", "Connections" and "Packaging", refer to the service manual as indicated below:

System	SC-VC968	SC-VC868	SC-VC848	SC-VC838	SC-EH501
Model No.	SA-EH600	SA-EH500	SA-EH501	SA-EH400	SA-EH501
Order No.	AD9712166C3	AD9712178C3	AD9712182C3	AD9712179C3	AD9712182C3

■ Location of Controls



① Deck 1 cassette holder open button (▲ OPEN)
② Deck 1 indicator (DECK 1)
③ Deck 1 cassette holder
④ Playback buttons and indicators (◁,▷)
⑤ Deck 2 cassette holder
⑥ Record pause indicator (REC PAUSE)
⑦ Deck 2 indicator (DECK 2)
⑧ Deck 2 cassette holder open button (▲ OPEN)
⑨ Counter reset, display buttons (COUNTER, RESET, DISPLAY)
⑩ Deck 1/deck 2 select button (DECK 1/2)
⑪ Reverse mode select button (REV MODE)
⑫ Fast forward/rewind buttons (◀◀ , ▶▶)
⑬ Stop button (■)
⑭ Dolby noise reduction button (DOLBY NR)
⑮ Record pause button (● REC PAUSE)
⑯ Tape edit buttons (TAPE EDIT, NOR, HIGH)

■ Operation Checks and Main Component Replacement Procedures

NOTE

1. **This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.**

2. **For reassembly after operation checks or replacement, reverse the respective procedures. Special reassembly procedures are described only when required.**

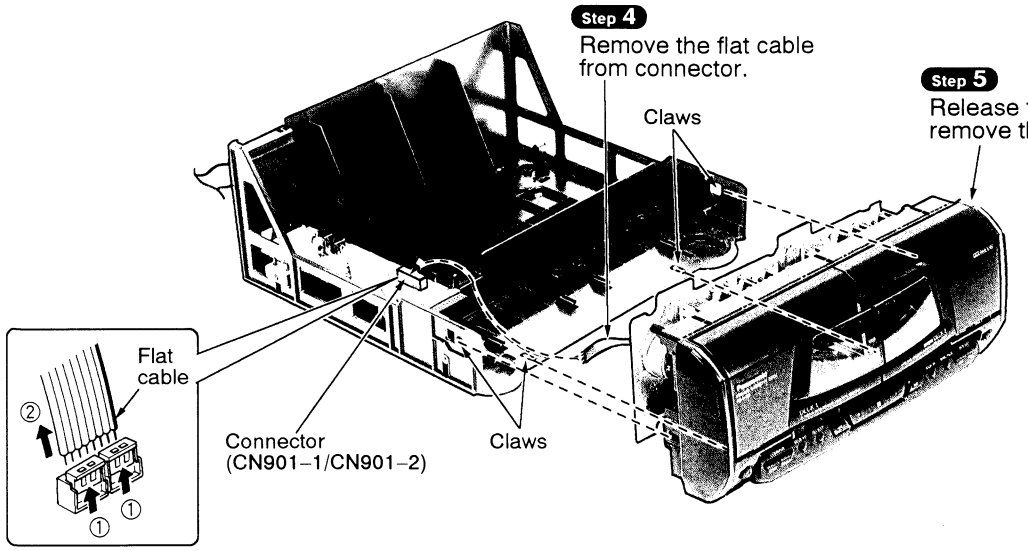
3. **Select items from the following index when checks or replacement are required.**

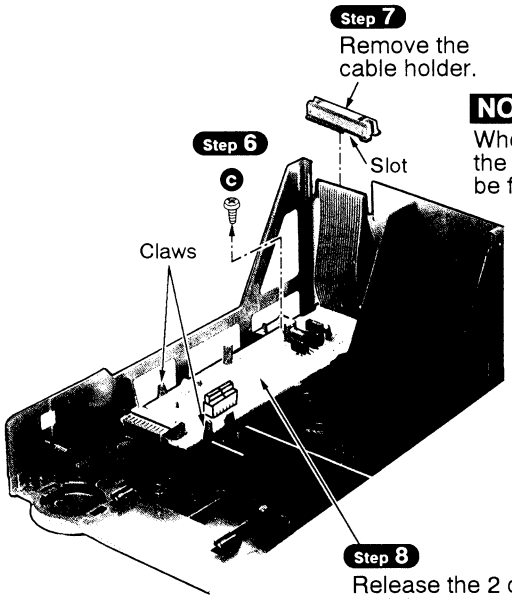
4. **Refer the parts No. on the page of "Main Component Replacement Procedures", if necessary.**

• Contents

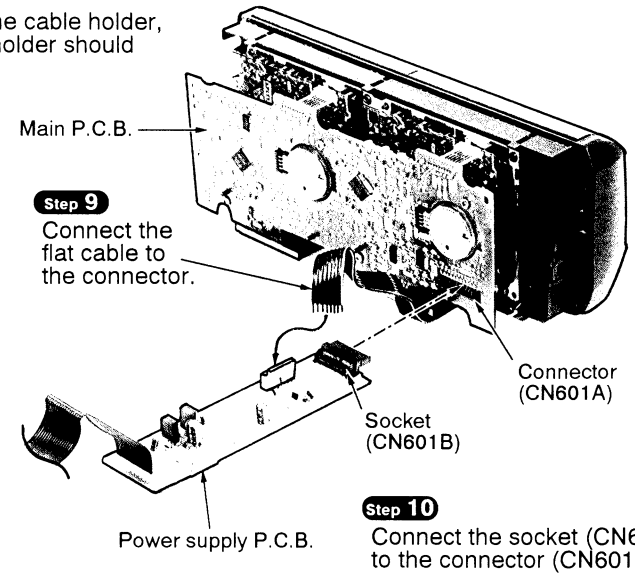
•Checking Procedure for each P.C.B. Page.

1. Checking for the main P.C.B. and power supply P.C.B.. • • •



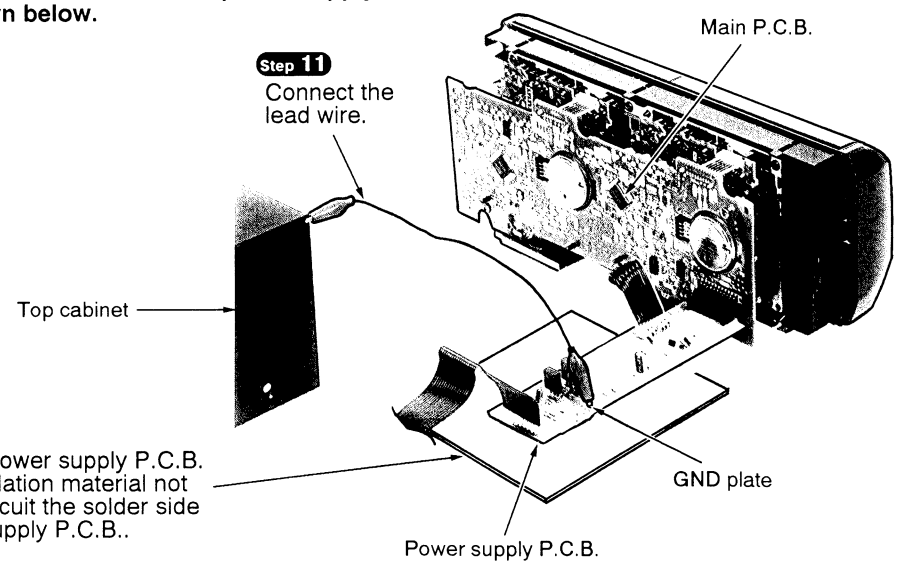


NOTE
When installing the cable holder, the slot of cable holder should be faced inward.



Step 10
Connect the socket (CN601B) to the connector (CN601A).

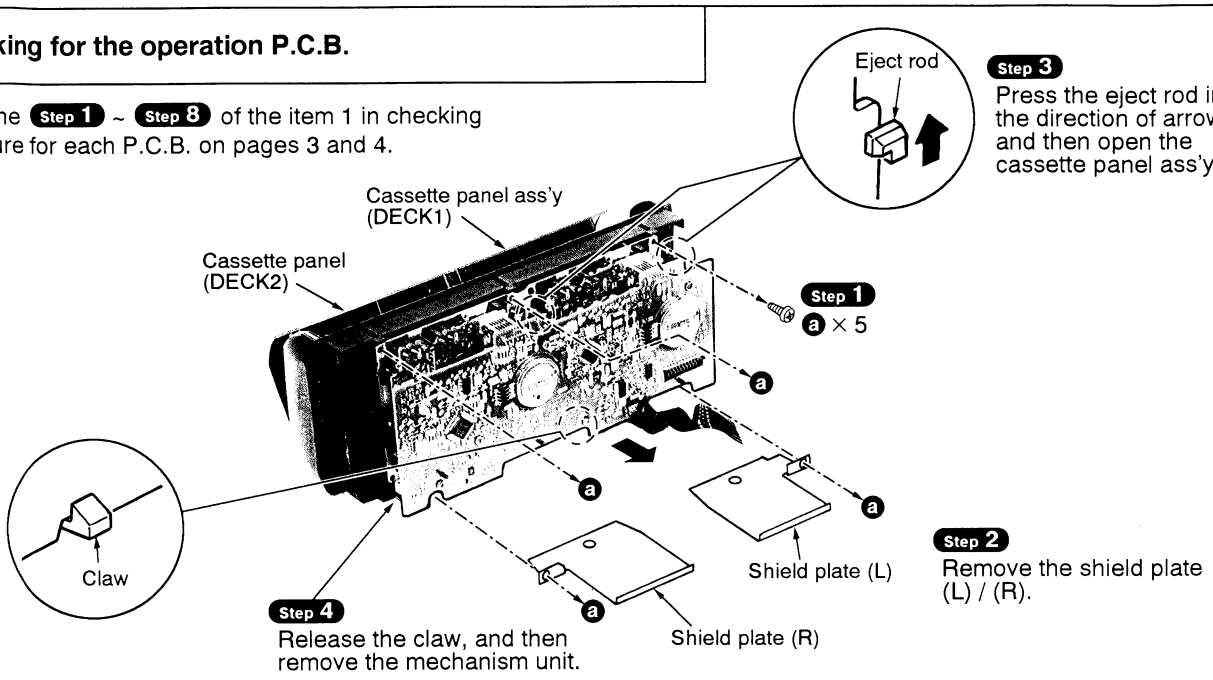
- **Check the main P.C.B. and power supply P.C.B. as shown below.**

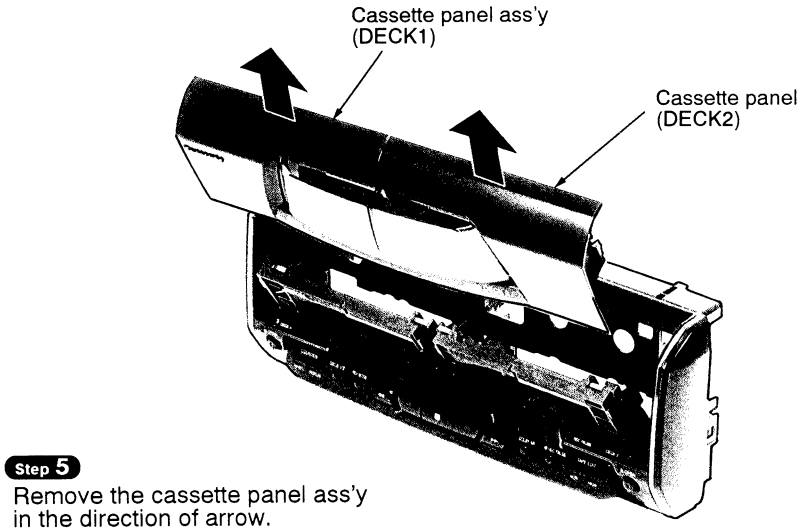


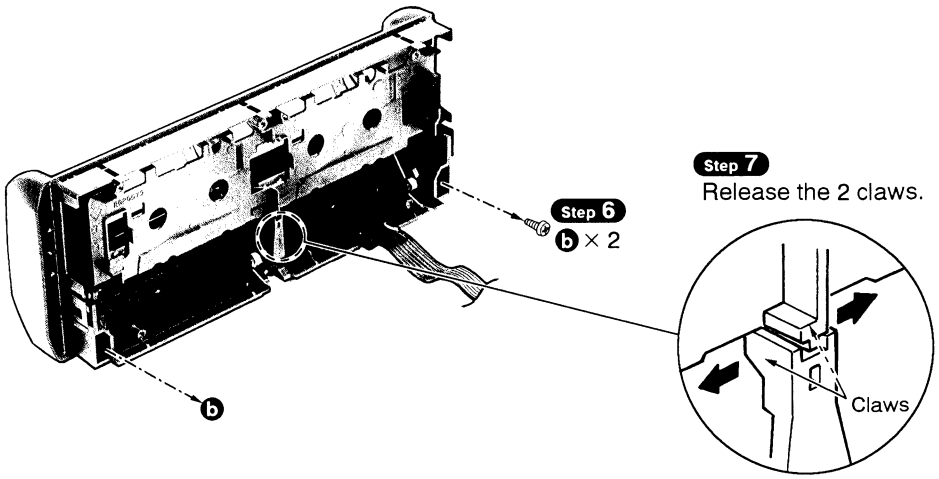
NOTE
Place the power supply P.C.B. on the insulation material not to short-circuit the solder side of power supply P.C.B..

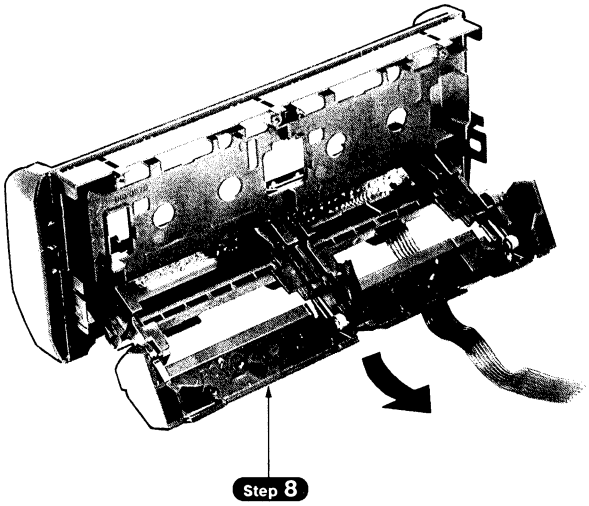
2. Checking for the operation P.C.B.

• Follow the Step 1 ~ Step 8 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.

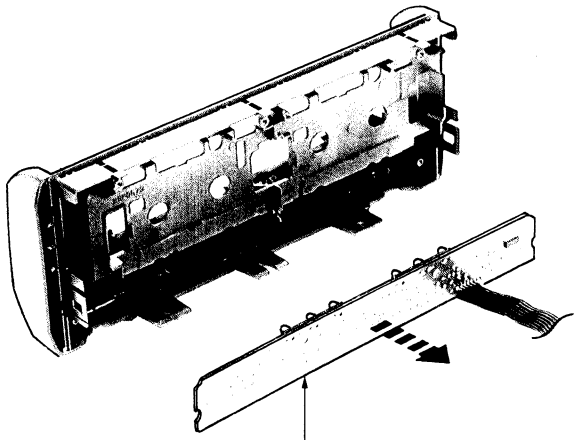

Eject rod
Step 3
Press the eject rod in the direction of arrow, and then open the cassette panel ass'y.
Cassette panel ass'y (DECK1)
Cassette panel (DECK2)
Step 1
ⓐ × 5
Claw
Step 4
Release the claw, and then remove the mechanism unit.
Shield plate (L)
Shield plate (R)
Step 2
Remove the shield plate (L) / (R).



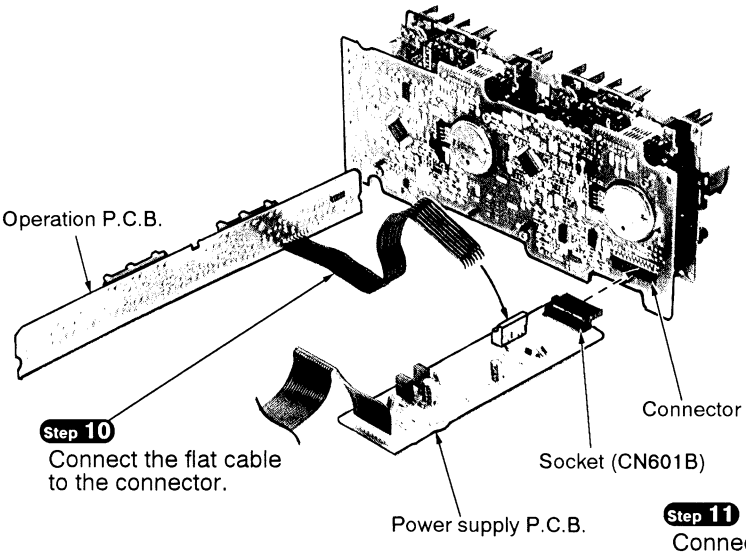




Step 8
Remove the deck mecha frame in the direction of arrow.

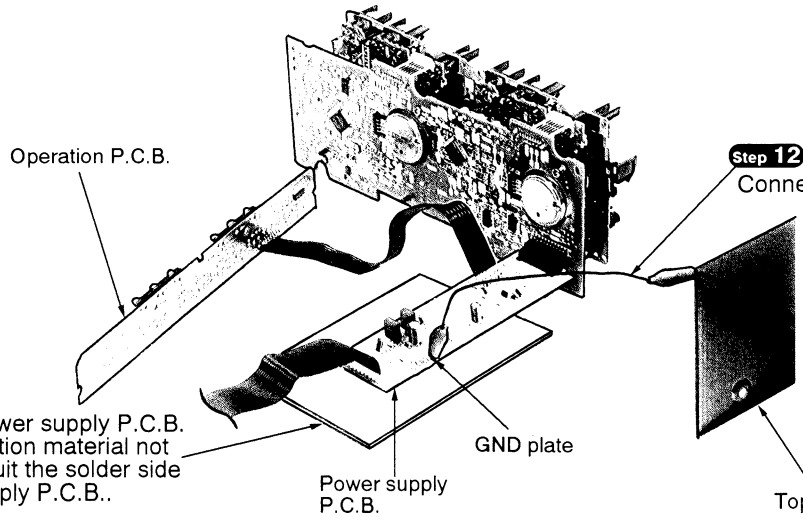


Step 9
Remove the operation P.C.B..



Step 11
Connect the socket (CN601B) to the connector (CN601A).

• Check the operation P.C.B. as shown below.

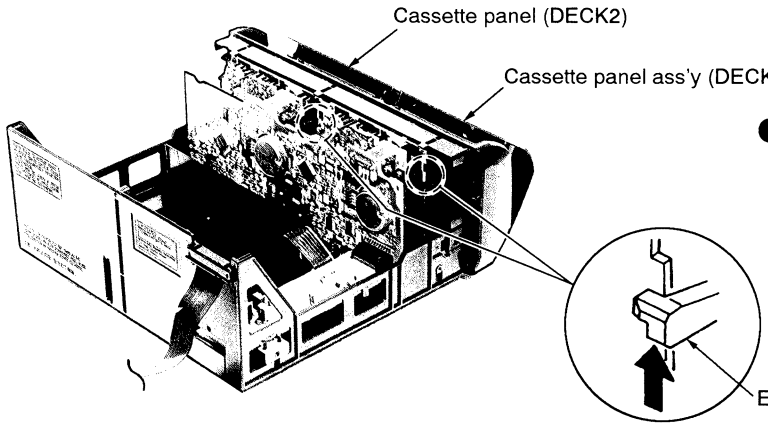


NOTE
Place the power supply P.C.B. on the insulation material not to short-circuit the solder side of power supply P.C.B..

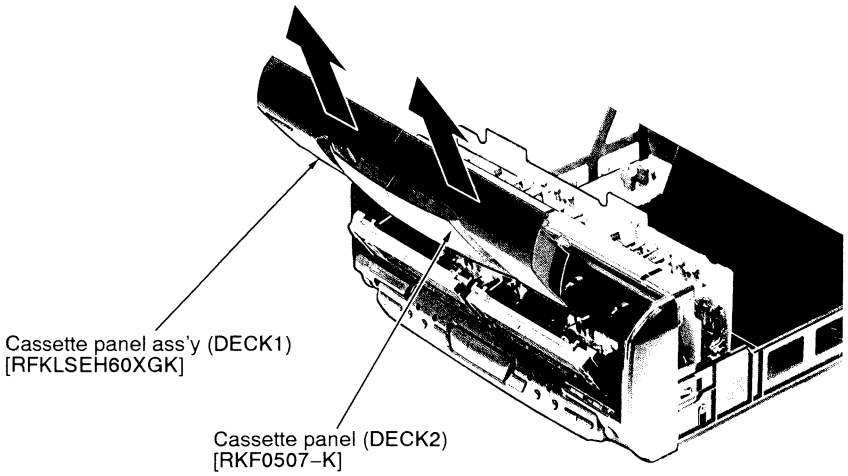
■ Main Component Replacement procedures

1. Replacement for the cassette panel ass'y

• Follow the Step 1 ~ Step 3 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.



Step 1
Press the eject rod in the direction of arrow, and then open the cassette panel ass'y.

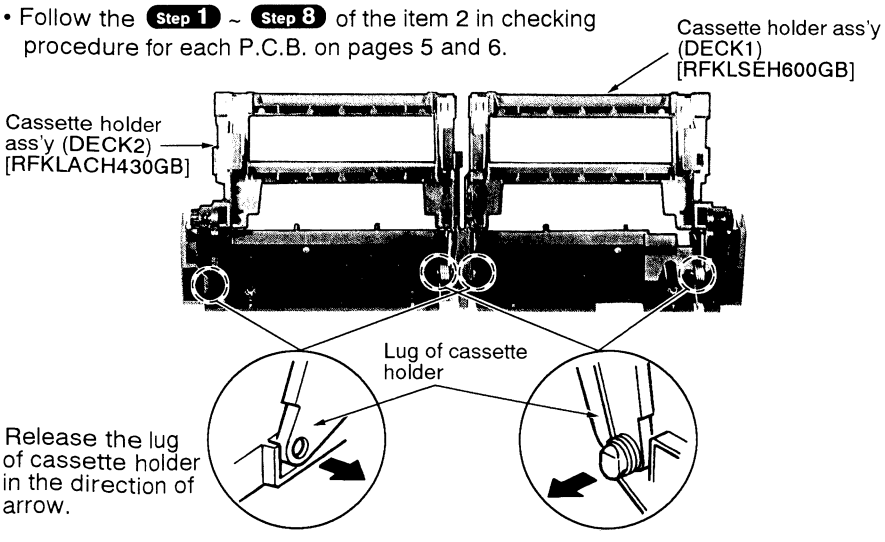


Step 2
Remove the cassette panel ass'y in the direction of arrow.

2. Replacement for the cassette holder

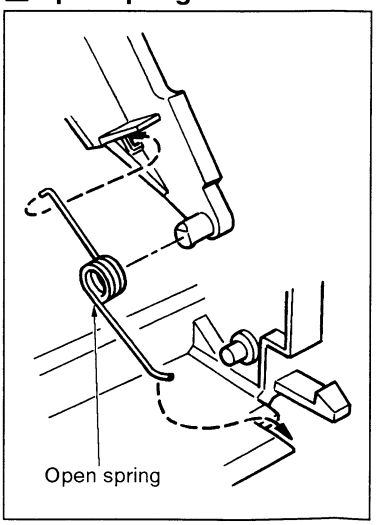
• Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.

• Follow the Step 1 ~ Step 8 of the item 2 in checking procedure for each P.C.B. on pages 5 and 6.



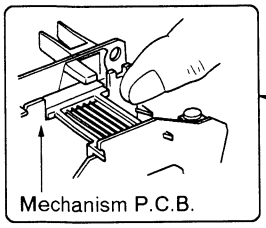
• Release the lug of cassette holder in the direction of arrow.

■ Open spring installation

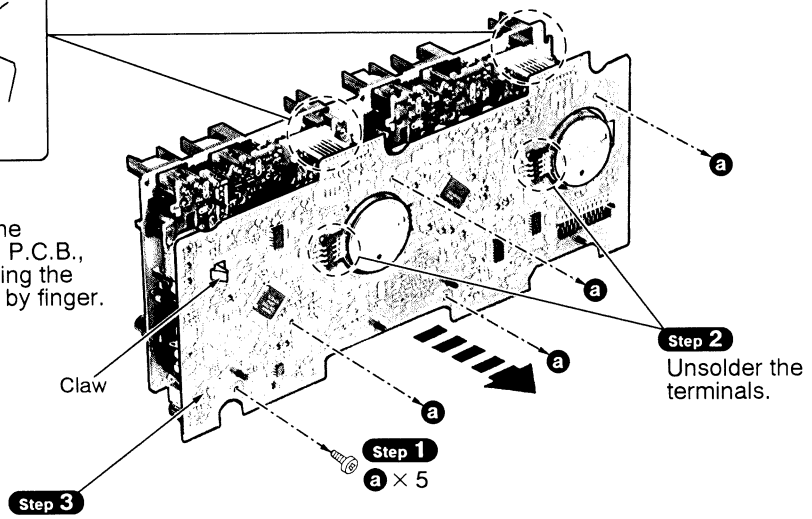


3. Replacement for the motor ass'y, capstan belt and winding belt

- Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the Step 1 ~ Step 4 of the item 2 in checking procedure for each P.C.B. on page 5.



NOTE
When removeing the mechanism control P.C.B., remove it with holding the mechanism P.C.B. by finger.

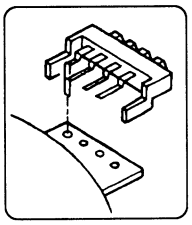


Step 2
Unsolder the terminals.

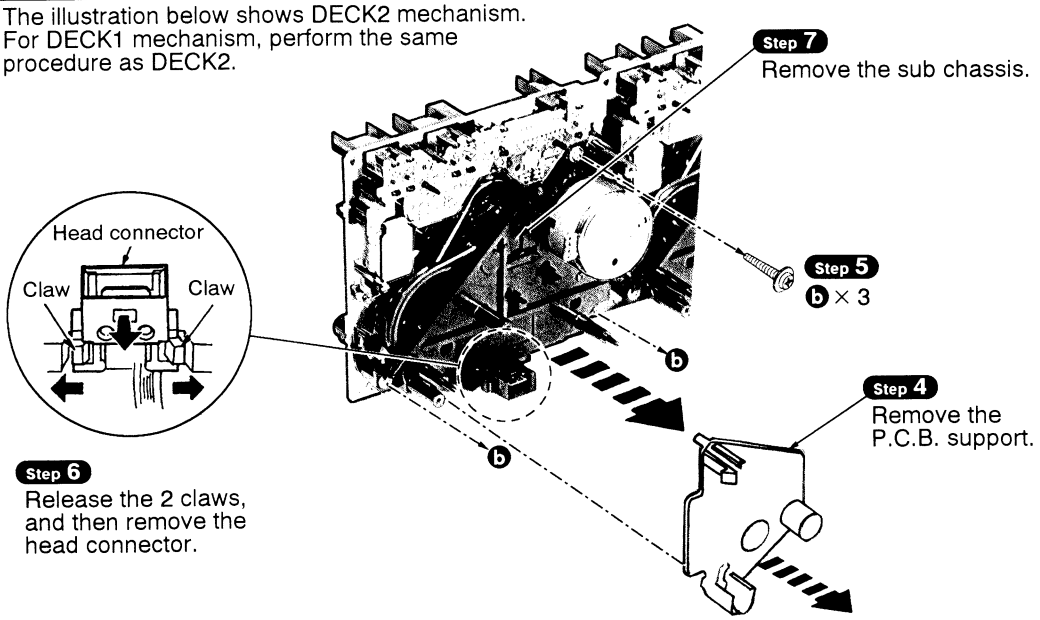
Step 1
a × 5

Step 3
Release the claw, and then remove the main P.C.B..

NOTE
Handle the connector with care so that the shape of terminals different from others.



NOTE
The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.

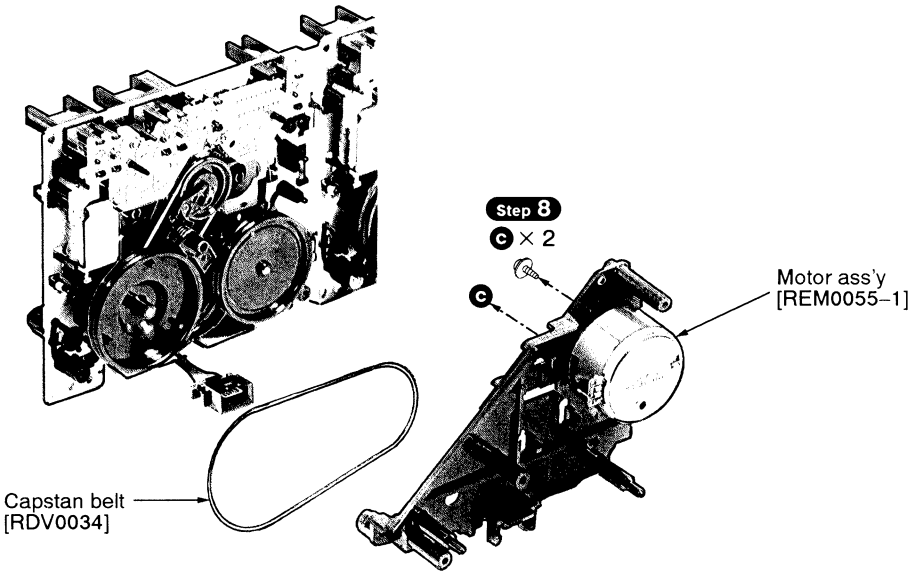


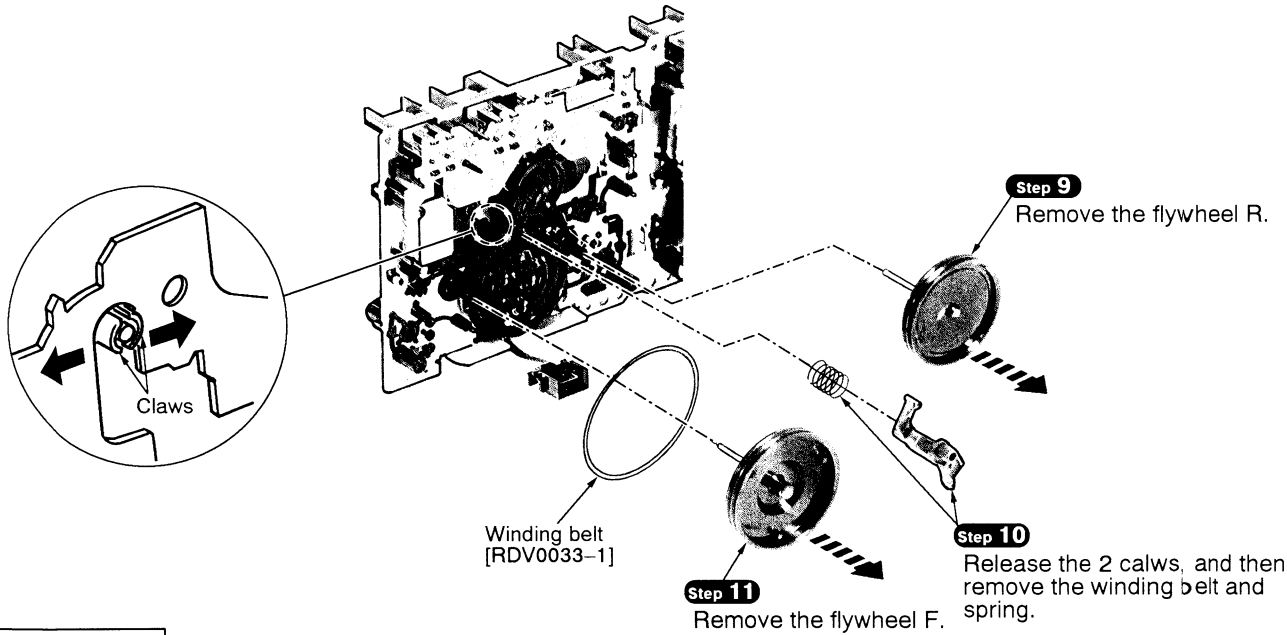
Step 7
Remove the sub chassis.

Step 5
b × 3

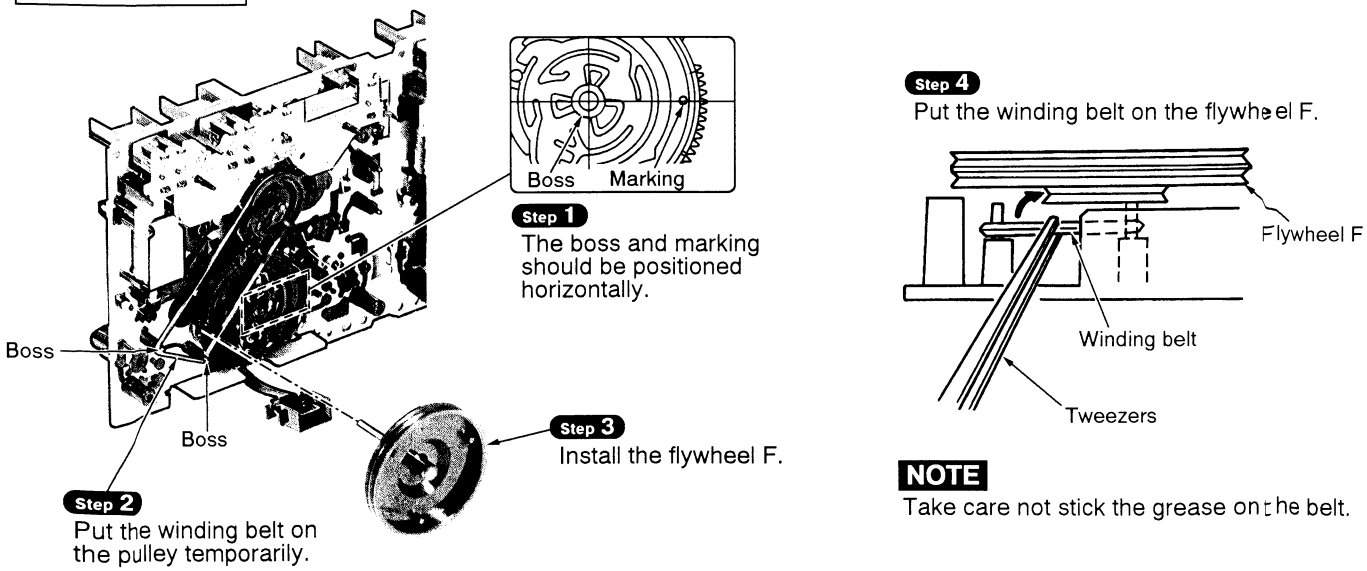
Step 4
Remove the P.C.B. support.

Step 6
Release the 2 claws, and then remove the head connector.





Installing the belt

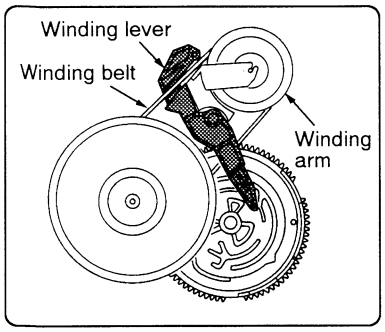


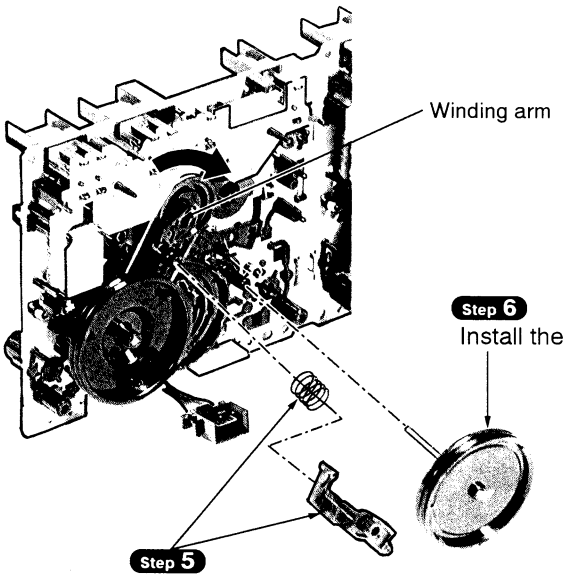
NOTE

Take care not stick the grease on the belt.

NOTE

The winding lever should be positioned as shown below.

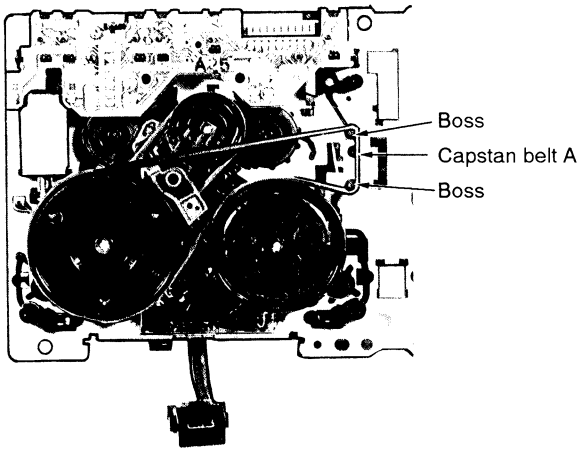


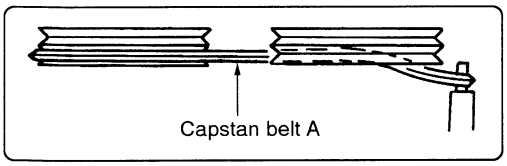


Step 6
Install the flywheel R.

Step 5
Install the winding lever and spring while pressing the winding arm in the direction of arrow.
(The winding lever must be inserted completly and latched with claws.)

Step 7
Put the capstan belt A temporarily as shown below.

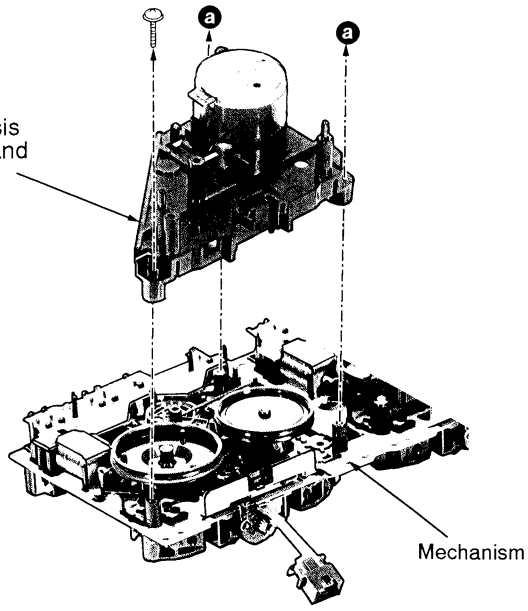


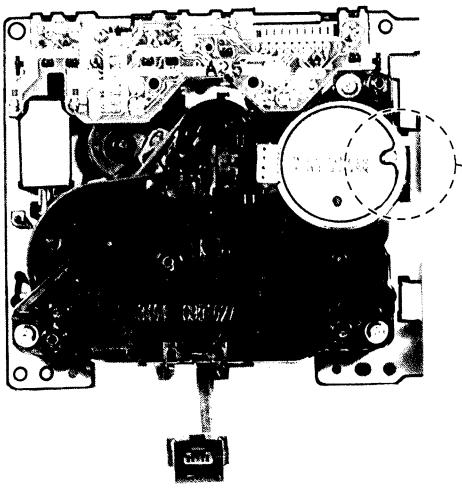


(Side view)

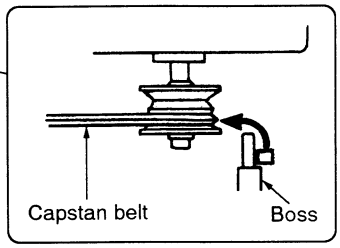
Step 9 ⓐ × 3

Step 8
Install the sub chassis to the mechanism, and then tighten screws.





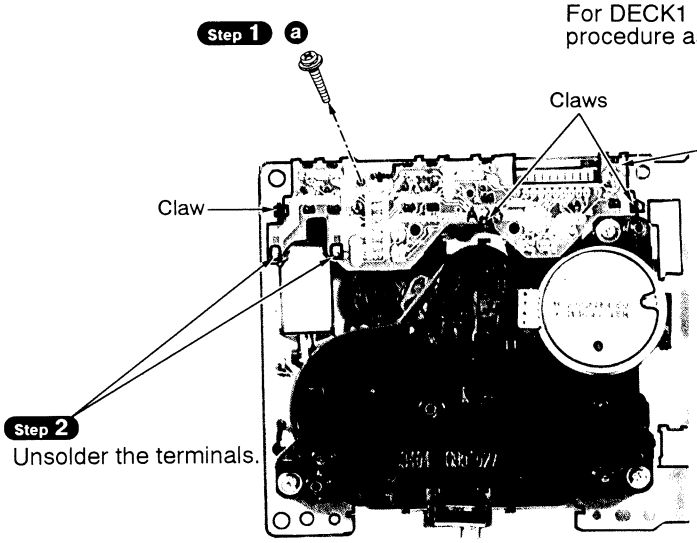
Step 10
Put the capstan belt on the motor ass'y pulley.

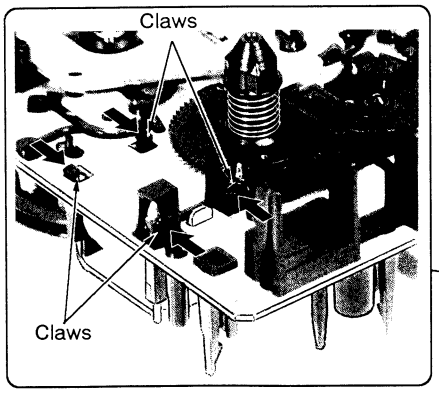


4. Replacement for the plunger ass'y and the parts mounted on mechanism P.C.B.

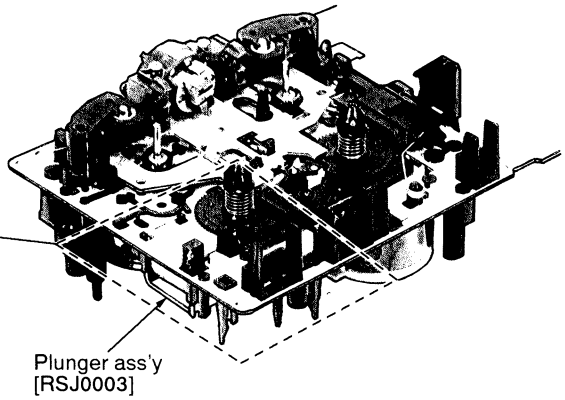
- Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the Step 1 ~ Step 4 of the item 2 in checking procedure for each P.C.B. on page 5.
- Follow the Step 1 ~ Step 3 of the item 3 in main component replacement procedures on page 8.

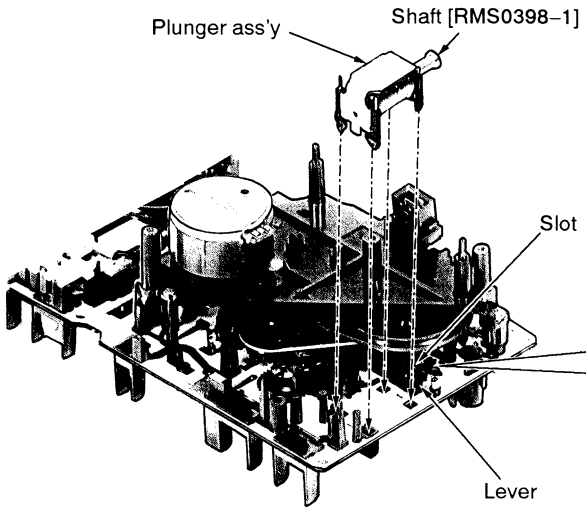
NOTE
The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.





Step 4 Release the 4 claws.

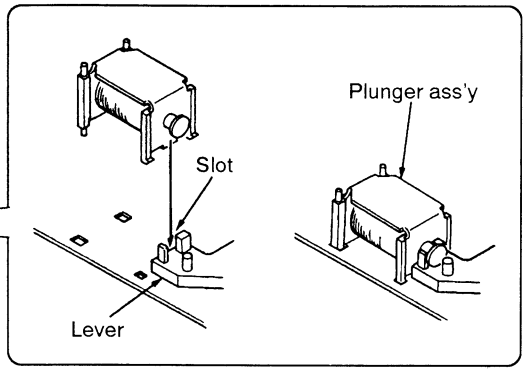




NOTE

Notice for installing the plunger ass'y

- The shaft of plunger ass'y should be aligned with the slot of lever.

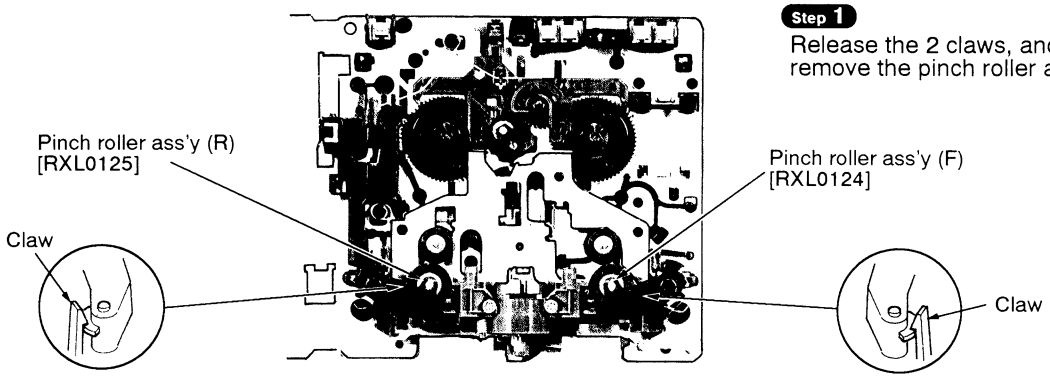


5. Replacement for the head block and pinch roller ass'y

- Follow the Step 1 ~ Step 5 of the item 1 in checking procedure for each P.C.B. on pages 3 and 4.
- Follow the Step 1 ~ Step 4 of the item 2 in checking procedure for each P.C.B. on page 5.
- Follow the Step 1 ~ Step 3 of the item 3 in main component replacement procedures on page 8.

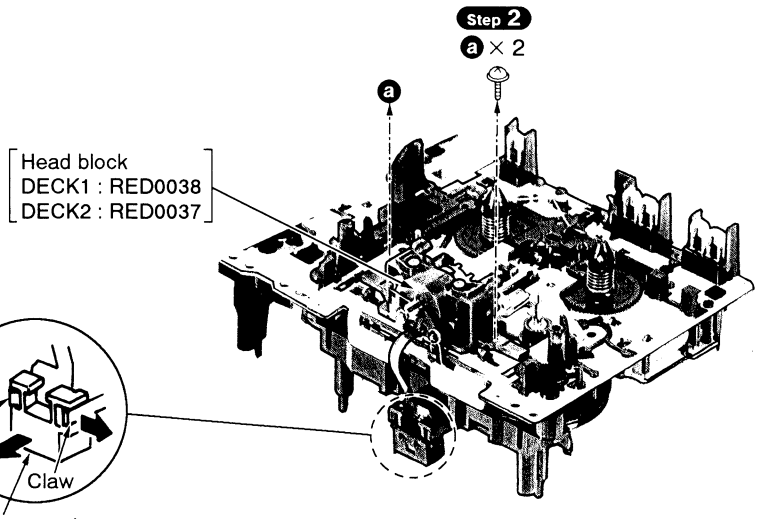
NOTE

The illustration below shows DECK2 mechanism. For DECK1 mechanism, perform the same procedure as DECK2.



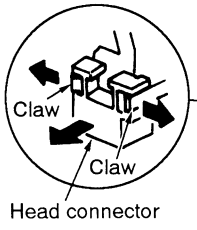
Step 1

Release the 2 claws, and then remove the pinch roller ass'y (R),(F).



Step 3

Release the 2 claws, and then remove the head connector.



■ To Supply Power Source

This unit RS-EH600 is designed to operate on power supplied from the system connected. (For system connection, refer to Fig.1)

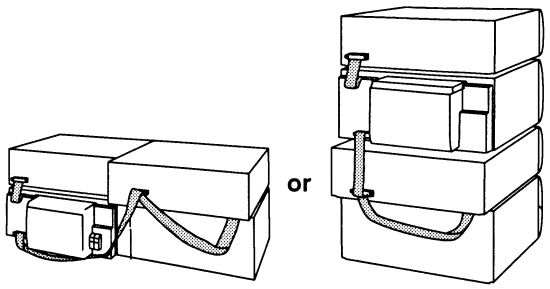


Fig. 1

When you have to test and service the unit RS-EH600 alone, use the following method to supply power source and operate the unit:

1. Short between J101 and J115. **A** (Fig.2)
2. Short J12, J14 and J114 with each other. **B** (Fig.2)
3. Connect an AF Oscillator to CN601 (10-pin) and **B**, then adjust the output to 100Hz, 5Vms. (Fig.3)
4. Connect a DC Power Supply to **A** and **B**, then adjust the output to 10V. (Fig.4)

Note : When operated alone, this unit automatically enter the TEST mode, causing either the DECK 1 or DECK 2 indicators to blink.
In TEST mode, please make sure whether the Dolby B indication is on or off by the illumination of DECK 1 cassette holder is lighted on or off.
(DECK 1 illumination lighted on: Dolby ON, illumination Lighted off: Dolby OFF)

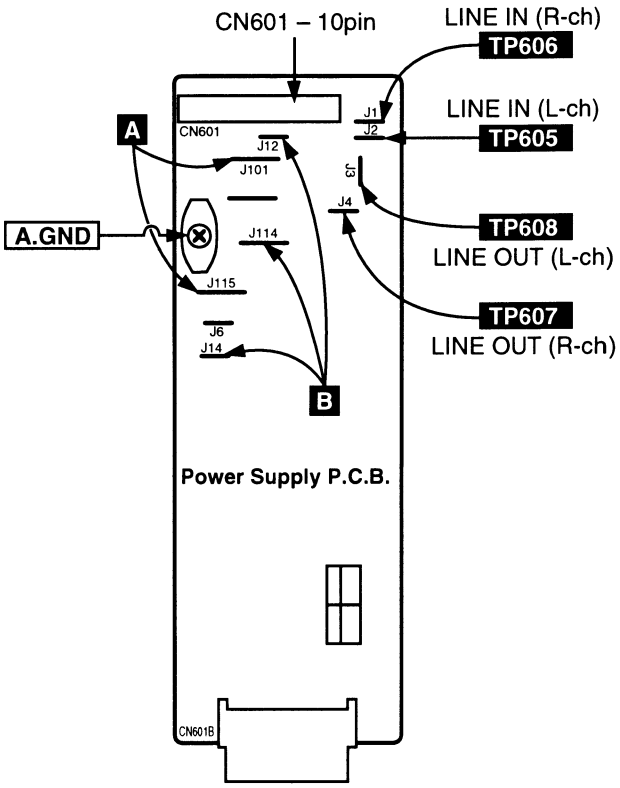


Fig. 2

■ To Check Signals

Connect an Oscilloscope or a built-in amplifier speaker between line output for L-ch (**TP608**) and A.GND , and line out for R-ch (**TP607**) and A.GND and check if the signals are outputting from this unit.

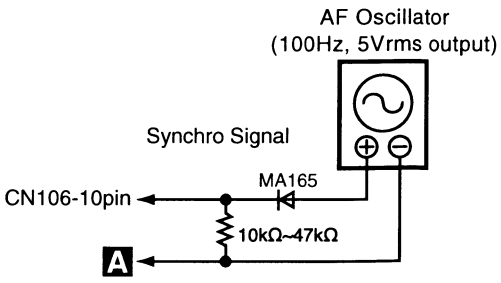


Fig. 3

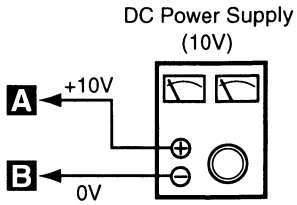


Fig. 4

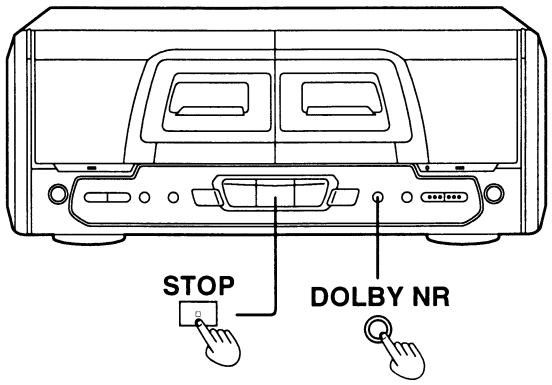
■ Service Mode Function of Cassette Mechanism

This unit is equipped with a service mode function of cassette mechanism using the LED indicators [R. PLAY (◄), F. PLAY (►)] and cassette holder illuminations [DECK 1, DECK 2]. Use this function during maintenance to check faults of the items below.

• Cassette tapes to be prepared

Metal tape: Recorded music tape with only one erase-prevention tab intact (use middle portion of tape).

Normal tape: / CrO2 tape: } Recorded music tape with both erase-prevention tabs intact (use middle portion of tape).



• Selecting Service Mode

1. Turn on the power to the unit. (If RS-EH600 unit is removed from system, turn it on according to the procedure on page 13.)
2. Check that no tape is inserted in the cassette deck.
   Press the DOLBY NR button for about 2 seconds, and keep pressing it, also press the STOP button for about 2 seconds. (Service mode cannot be selected with a tape inserted in the cassette deck.)
3. The LED indicator for REC PAUSE flashes, the service mode has been activated.

• Deck 1 Mechanism Check

Use the Deck 1/2 select button to change the flashing Deck 2 indicator to Deck 1. (No change required if Deck 1 indicator already flashing.)

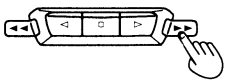
DECK 1/2

→ Open the Deck 1 cassette holder. (OPEN button)

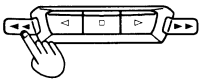
▲ OPEN

→ Insert a CrO2 tape into the Deck 1 and close the cassette holder.

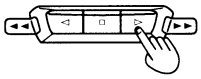
→ Press the TPS ►► button. (Tape fast forwards for about 2 seconds then stops.)



→ Press the ◄◄ TPS button. (Tape rewinds for about 2 seconds then stops.)

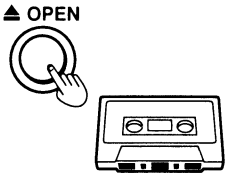


→ Press the PLAY button. (After TPS operation and check, the tape stops.)



→ Open the Deck 1 cassette holder and replace the tape with a normal tape. (OPEN button)

▲ OPEN

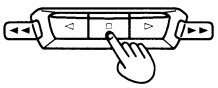


→ Close the Deck 1 cassette holder.

→ Press the REC/PAUSE button. (No record operation.)

●REC PAUSE

→ Press the STOP button. Fault items 1 to 7 can be checked as the four LED indicators turn on or off. (Refer to Table 1.) Each time the STOP button is pressed, the fault items are displayed in sequence.



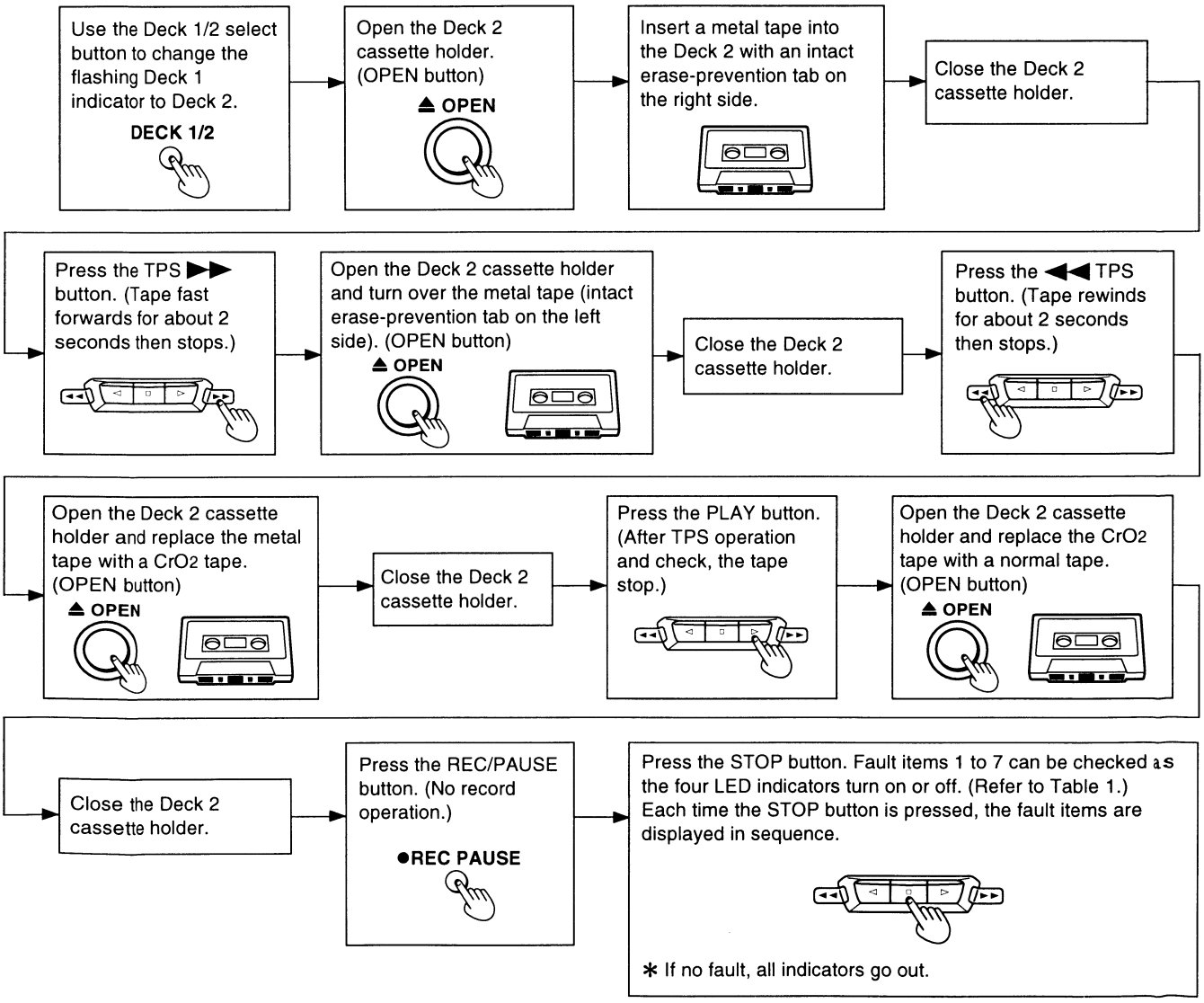
* If no fault, all indicators go out.

Table 1: Service Mode Diagnostic Items

No.	LED indicator and illumination status (on/off)				Fault location
	◄	DECK 1	DECK 2	►	
1	—	—	●	—	MODE detect switch
2	—	●	—	—	REC prevention switch
3	—	●	●	—	Half detect switch
4	—	●	—	●	CrO_2 tape detect switch
5	—	●	●	●	Metal tape detect switch
6	●	—	—	—	Reel pulse detect system (Hall IC, etc.)
7	●	—	●	—	TPS operation

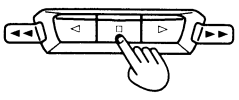
Notes:
" ● " : ON
" — " : OFF
* If no fault, all indicators go out.

• Deck 2 Mechanism Check


Use the Deck 1/2 select button to change the flashing Deck 1 indicator to Deck 2.
DECK 1/2
Open the Deck 2 cassette holder. (OPEN button)
▲ OPEN
Insert a metal tape into the Deck 2 with an intact erase-prevention tab on the right side.
Close the Deck 2 cassette holder.
Press the TPS ►► button. (Tape fast forwards for about 2 seconds then stops.)
Open the Deck 2 cassette holder and turn over the metal tape (intact erase-prevention tab on the left side). (OPEN button)
▲ OPEN
Close the Deck 2 cassette holder.
Press the ◄◄ TPS button. (Tape rewinds for about 2 seconds then stops.)
Open the Deck 2 cassette holder and replace the metal tape with a CrO2 tape. (OPEN button)
▲ OPEN
Close the Deck 2 cassette holder.
Press the PLAY button. (After TPS operation and check, the tape stop.)
Open the Deck 2 cassette holder and replace the CrO2 tape with a normal tape. (OPEN button)
▲ OPEN
Close the Deck 2 cassette holder.
Press the REC/PAUSE button. (No record operation.)
●REC PAUSE
Press the STOP button. Fault items 1 to 7 can be checked as the four LED indicators turn on or off. (Refer to Table 1.) Each time the STOP button is pressed, the fault items are displayed in sequence.
* If no fault, all indicators go out.

• Exiting Self-Check Mode

1. Press the STOP button for more than 6 seconds. (Diagnostic contents stored in memory for both Deck 1 and 2 are erased.)
2. Remove the cassette tape from the cassette holder.
3. Turn off the unit.



■ Schematic Diagram

Page

A MAIN CIRCUIT ..... 17~20
B MECHANISM CIRCUIT (DECK 1) 19
C MECHANISM CIRCUIT (DECK 2) 19
D POWER SUPPLY CIRCUIT 20
E OPERATION CIRCUIT 21

- This schematic diagram may be modified at any time with the development of new technology.

Notes:

- **S900** : Stop switch (■)
- **S901** : DECK 2 cassette holder open switch (≜OPEN)
- **S902** : One-touch tape edit switch (TAPE EDIT/HIGH)
- **S903** : One-touch tape edit switch (TAPE EDIT/NOR)
- **S904** : Record pause switch (●REC PAUSE)
- **S905** : Dolby noise reduction switch (DOLBY NR)
- **S906** : Fast forward/tape program sensor switch (►►)
- **S907** : Forward side playback switch (►)
- **S909** : Reverse side playback switch (◄)
- **S910** : Rewind/tape program sensor switch (◄◄)
- **S911** : Reverse mode select switch (REV MODE)
- **S912** : DECK 1/DECK 2 select switch (DECK 1/2)
- **S913** : Counter display switch (COUNTER DISPLAY)
- **S914** : Counter reset switch (COUNTER RESET)
- **S915** : DECK 1 cassette holder open switch (≜OPEN)
- **S951** : DECK 1 mode detect switch
- **S952** : DECK 1 half detect switch
- **S953** : DECK 1 CrO_2 tape detect switch
- **S971** : DECK 2 mode detect switch
- **S972** : DECK 2 half detect switch
- **S973** : DECK 2 CrO_2 tape detect switch
- **S974** : DECK 2 reverse side record prevention tab detect switch
- **S975** : DECK 2 forward side record prevention tab detect switch
- **S976** : DECK 2 METAL tape detect switch
- **VR101** : DECK 1 Playback gain adjustment VR (R-ch)
- **VR102** : DECK 2 Playback gain adjustment VR (L-ch)
- **VR103** : DECK 2 Playback gain adjustment VR (R-ch)
- **VR104** : DECK 1 Playback gain adjustment VR (L-ch)
- **VR801** : DECK 1 tape speed adjustment VR (normal)
- **VR802** : DECK 2 tape speed adjustment VR (high)
- **VR803** : DECK 2 tape speed adjustment VR (normal)

- Indicated voltage values are the standard values for the unit measured by the DC electronic circuit tester (high-impedance) with the chassis taken as standard. Therefore, there may exist some errors in the voltage values, depending on the internal impedance of the DC circuit tester.

  No mark : Playback ( ) : Recording

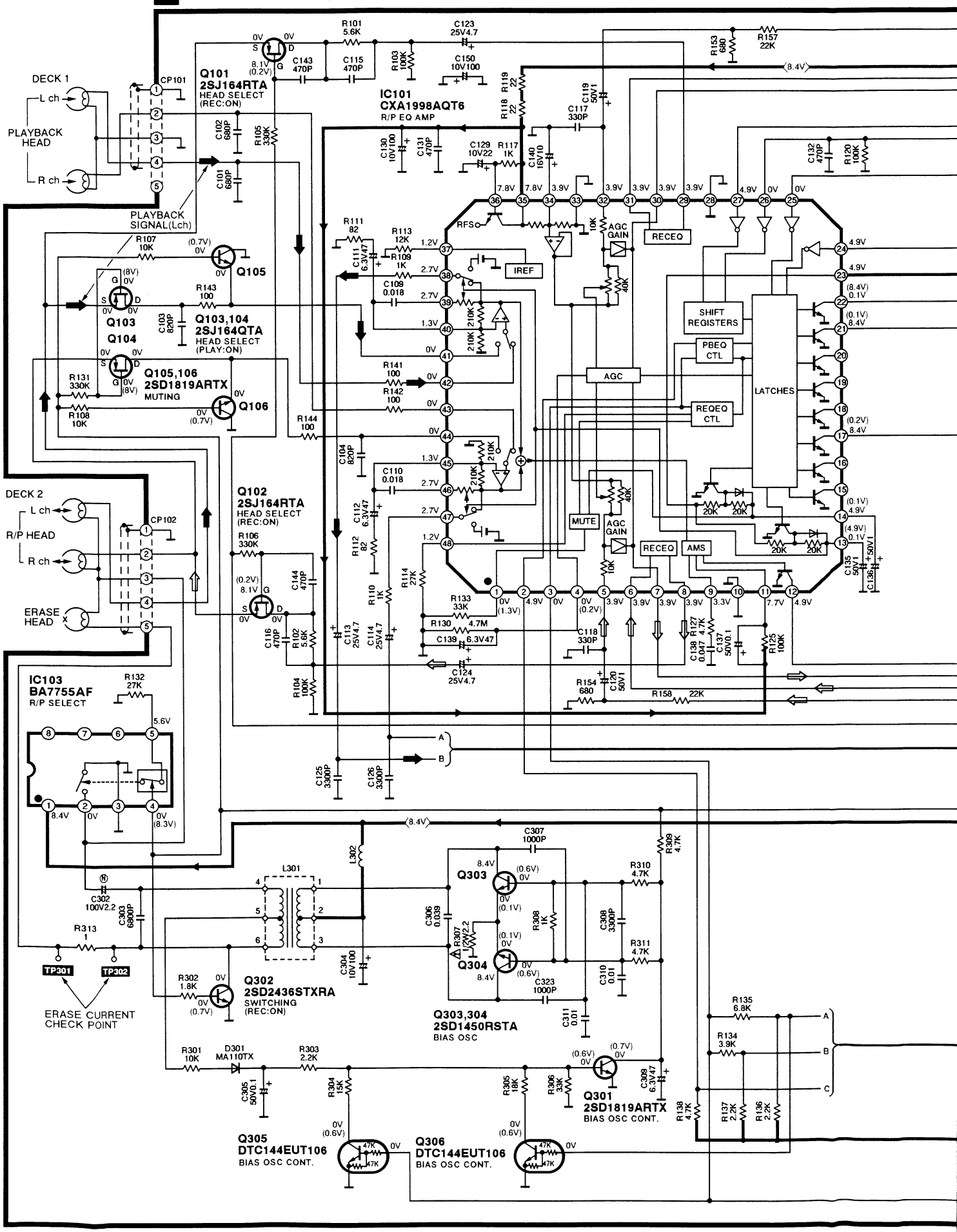
- Important safety notice:
  Components identified by ⚠ mark have special characteristics important for safety.
  Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

- **Caution!**
  IC and LSI are sensitive to static electricity.
  Secondary trouble can be prevented by taking care during repair.
  Cover the parts boxes made of plastics with aluminum foil.
  Ground the soldering iron.
  Put a conductive mat on the work table.
  Do not touch the legs of IC or LSI with the fingers directly.

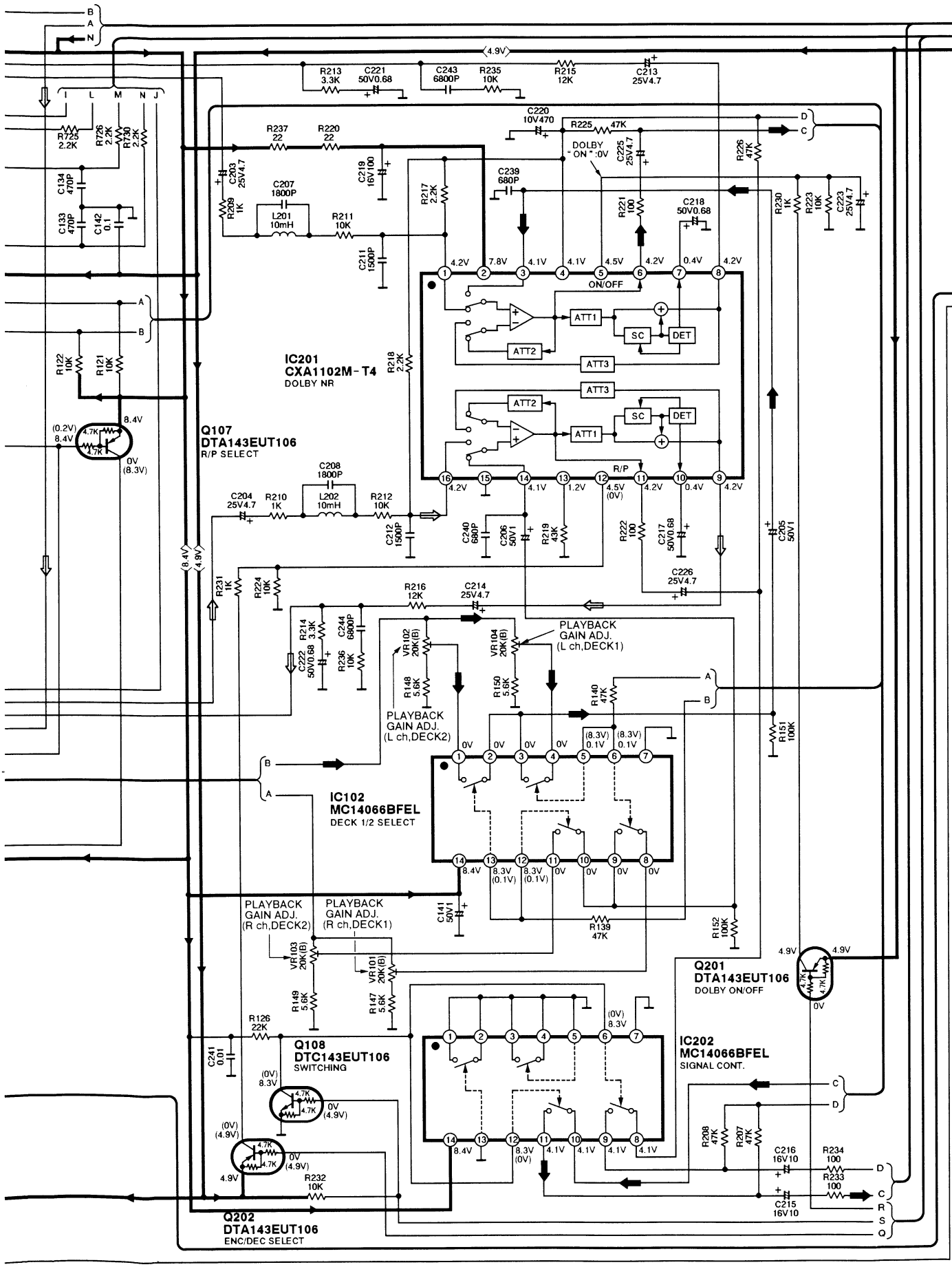
- **Voltage and signal line**

  : Positive voltage line : Playback signal Line : Recording signal Line

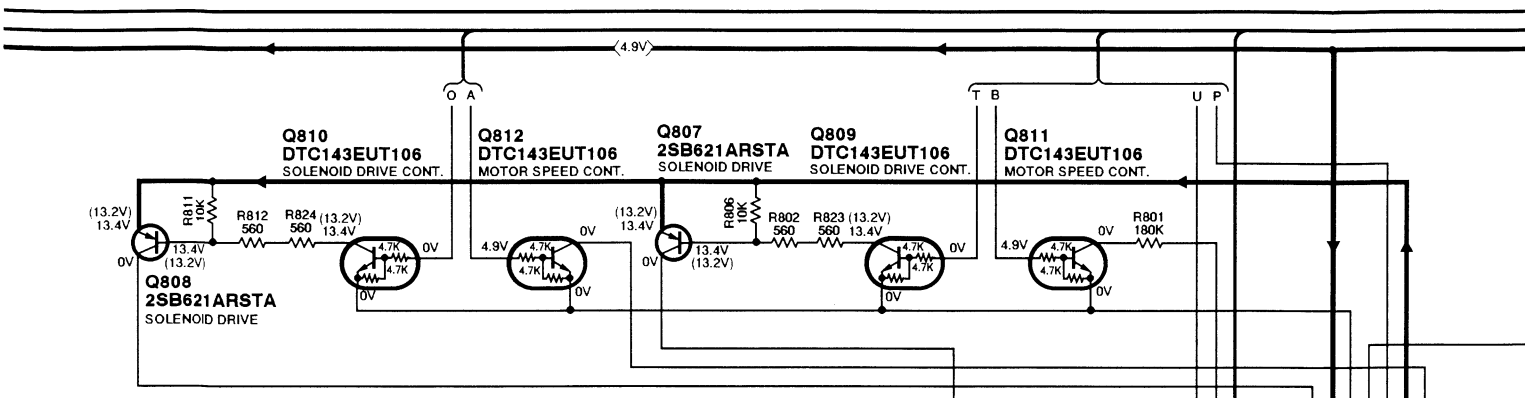
A MAIN CIRCUIT (P.C.Board:on page 22)



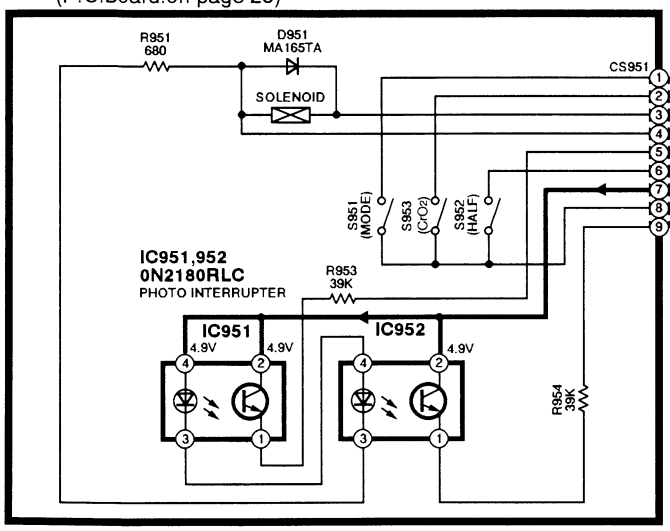
: Positive voltage line : Playback signal Line : Recording signal Line

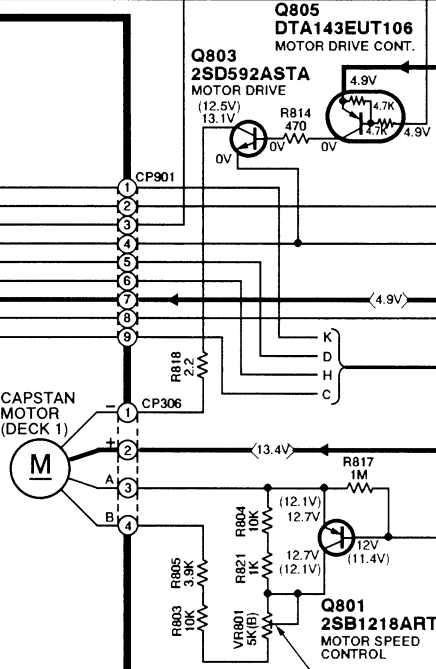


A MAIN CIRCUIT (P.C.Board:on page 22)

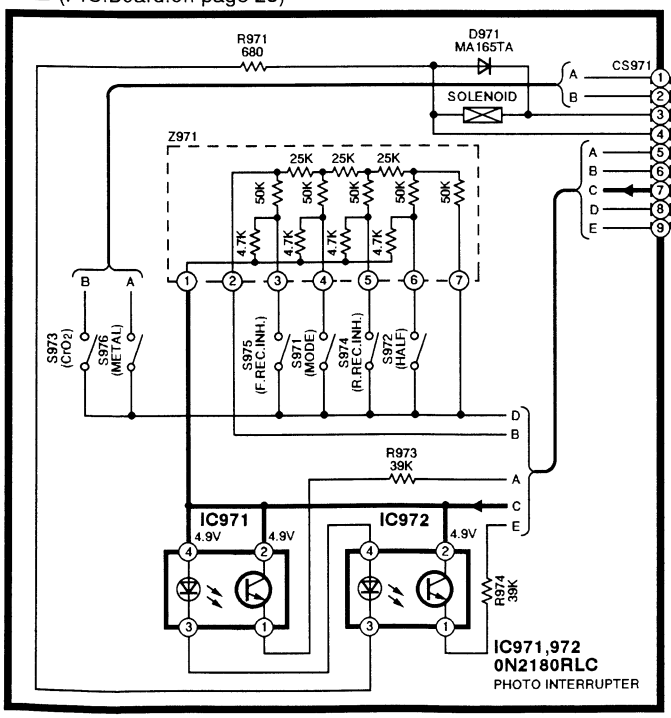


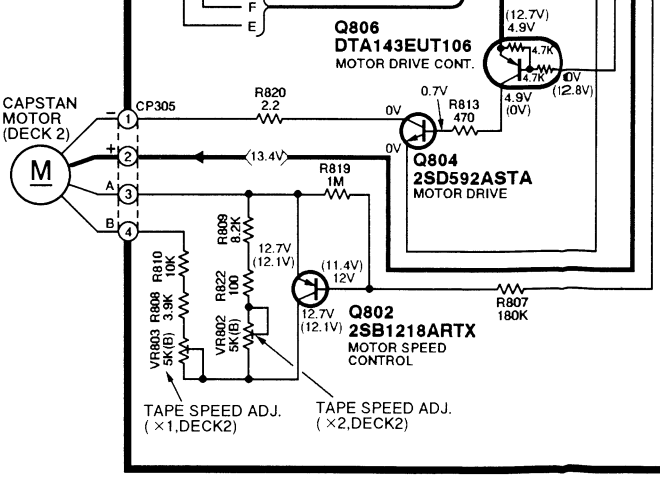
B MECHANISM CIRCUIT (DECK1) (P.C.Board:on page 23)

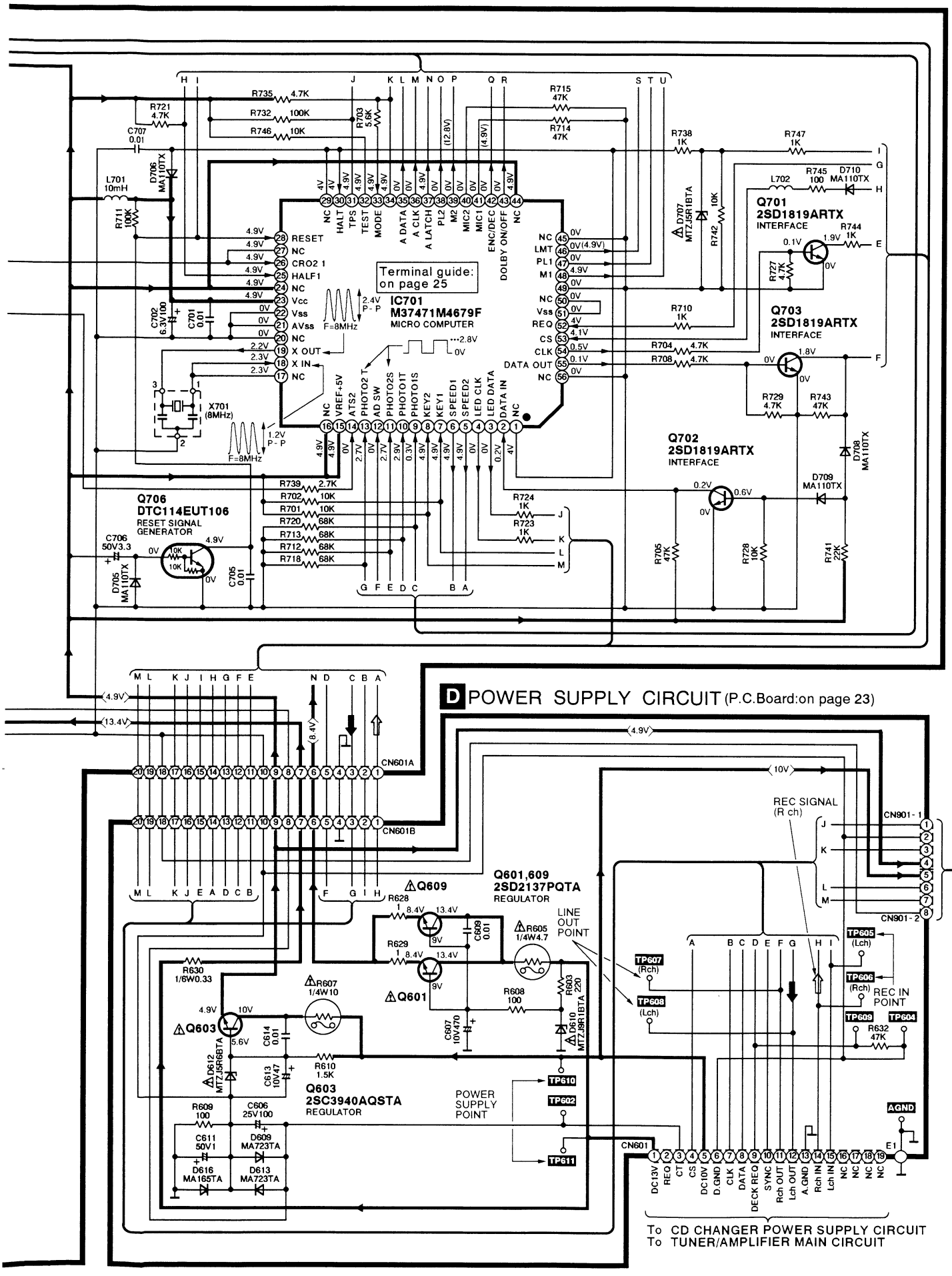




C MECHANISM CIRCUIT (DECK2) (P.C.Board:on page 23)






IC701
M37471M4679F
MICRO COMPUTER
Terminal guide:
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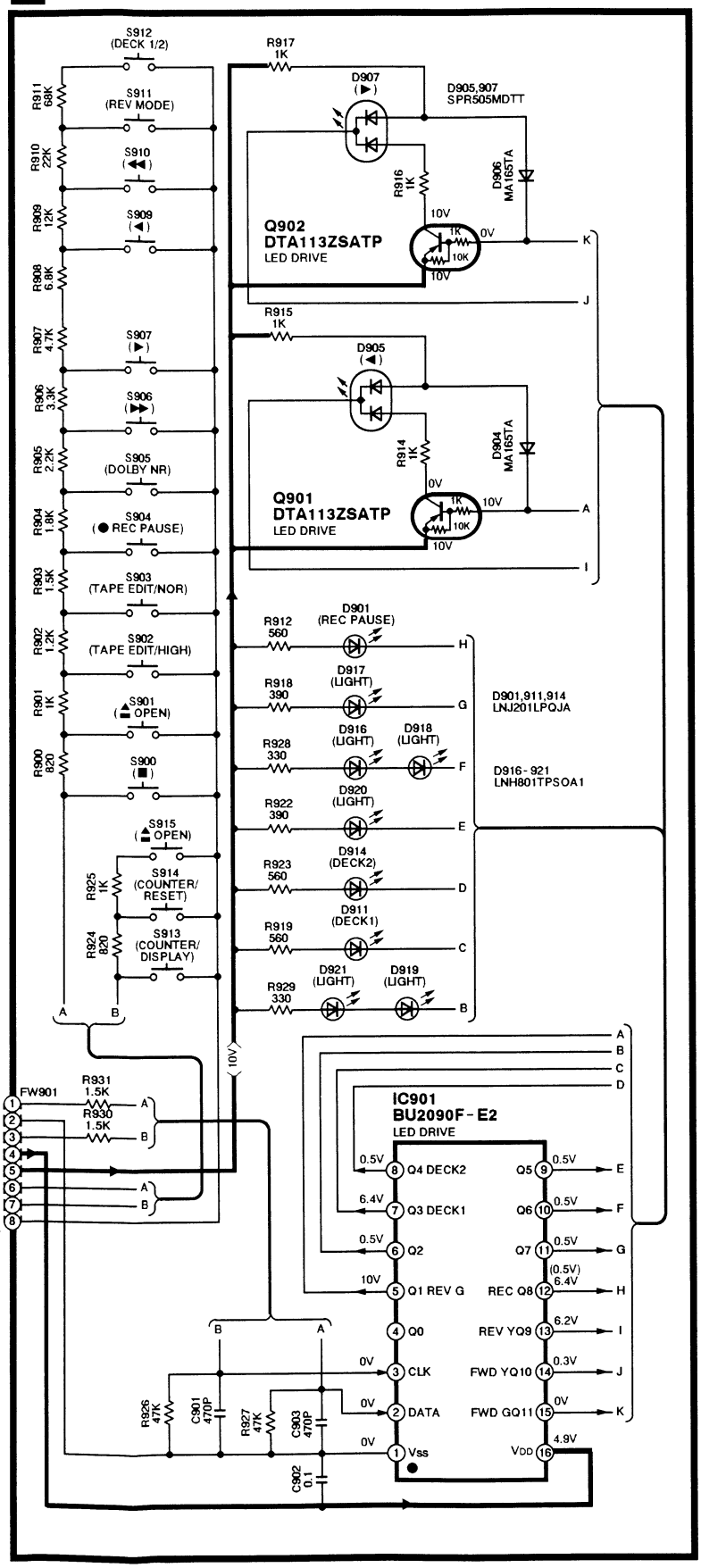
Q701
2SD1819ARTX
INTERFACE
Q702
2SD1819ARTX
INTERFACE
Q703
2SD1819ARTX
INTERFACE
Q706
DTC114EUT106
RESET SIGNAL
GENERATOR
X701
(8MHz)
F=8MHz
RESET
HALF1
CRO2 1
X OUT
X IN
Vcc
Vss
AVss
REQ
CS
CLK
DATA OUT
DATA IN
LED CLK
LED DATA
SPEED1
SPEED2
KEY1
KEY2
PHOTO1S
PHOTO1T
PHOTO2S
PHOTO2T
AD SW
ATS2
VREF+5V
HALT
TPS
TEST
MODE
A DATA
A CLK
A LATCH
PL2
M2
MIC2
MIC1
ENC/DEC
DOLBY ON/OFF
LMT
PL1
M1
D POWER SUPPLY CIRCUIT (P.C.Board:on page 23)
CN601A
CN601B
CN601
CN901-1
CN901-2
REC SIGNAL
(R ch)
REC IN
POINT
LINE
OUT
POINT
POWER
SUPPLY
POINT
Q601,609
2SD2137PQTA
REGULATOR
Q603
2SC3940AQSTA
REGULATOR
Q601
Q609
TP605 (Lch)
TP606 (Rch)
TP607 (Rch)
TP608 (Lch)
TP609
TP604
TP610
TP602
TP611
A.GND
To CD CHANGER POWER SUPPLY CIRCUIT
To TUNER/AMPLIFIER MAIN CIRCUIT

E OPERATION CIRCUIT (P.C.Board:on page 23)



: Positive voltage line

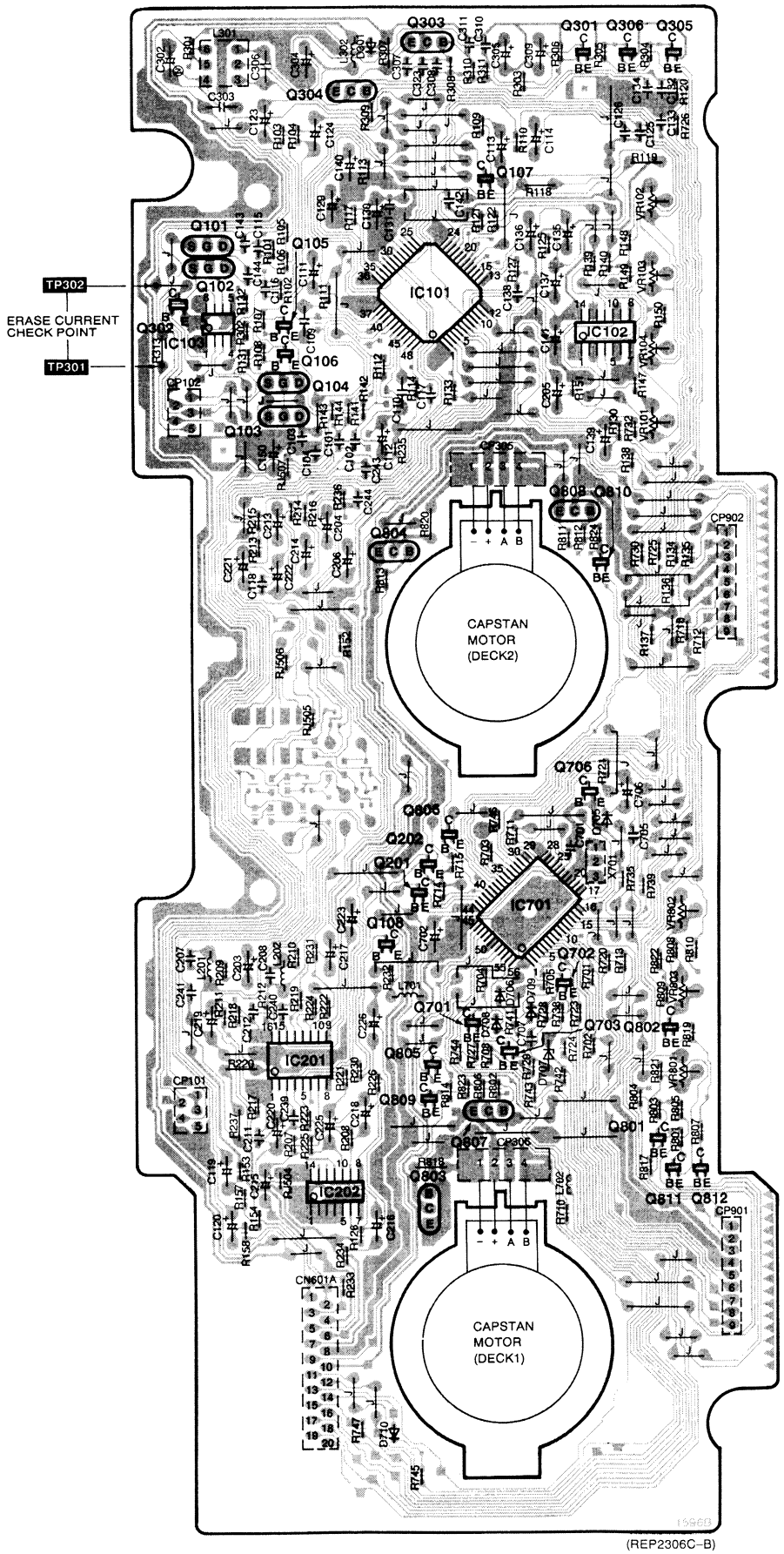
: Playback signal Line

: Recording signal Line

■ Printed Circuit Board Diagram

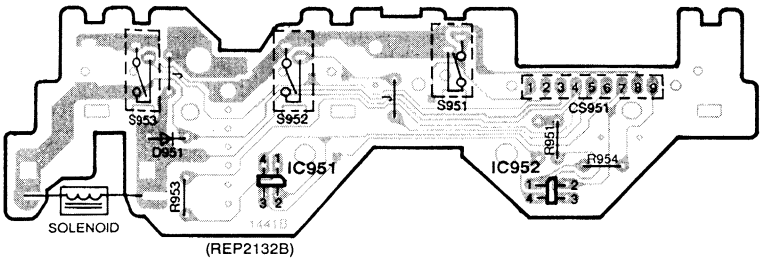
- This circuit board diagram may be modified at any time with the development of new technology.

A **MAIN P.C.B.**



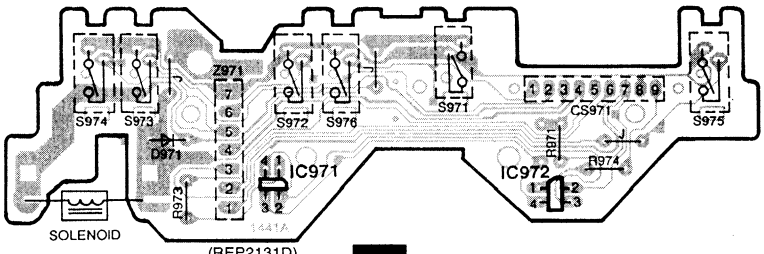
(REP2306C-B)

B MECHANISM P.C.B. (DECK1)



(REP2132B)

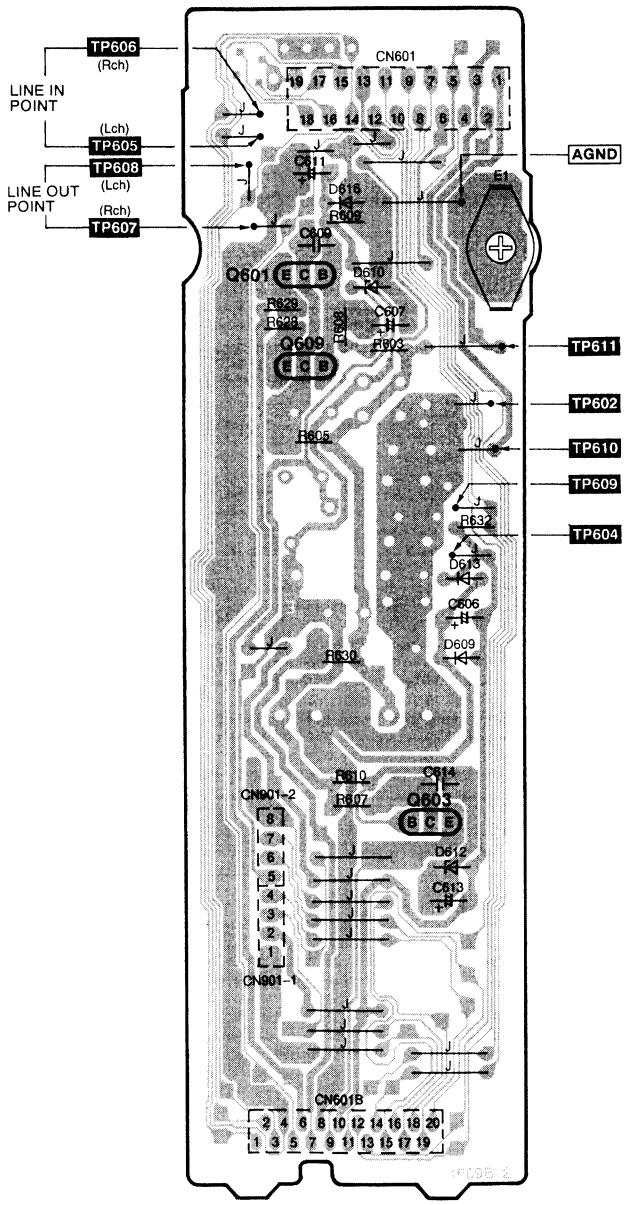
C MECHANISM P.C.B. (DECK2)



(REP2131D)

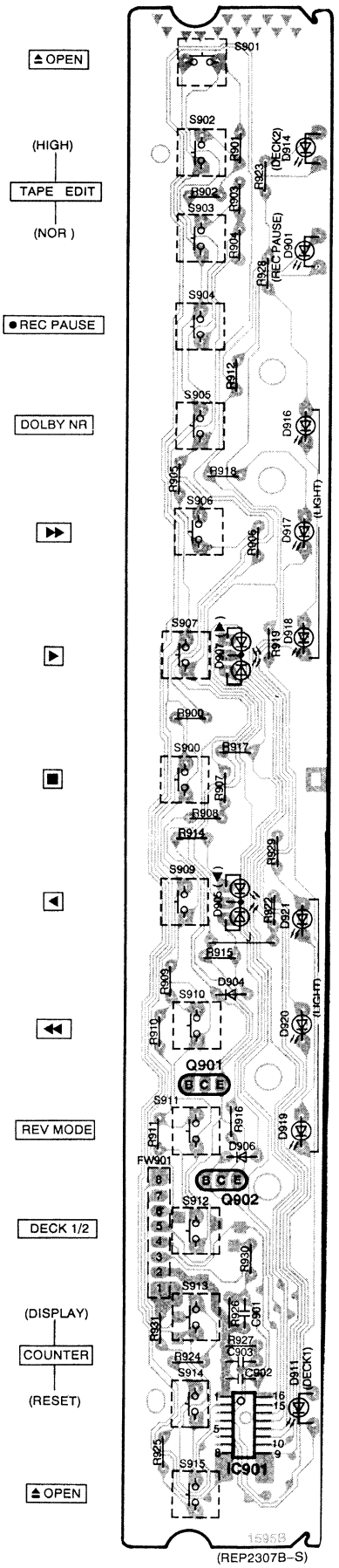
D POWER SUPPLY P.C.B.

To CD CHANGER POWER SUPPLY P.C.B.
To TUNER/AMPLIFIER MAIN P.C.B.



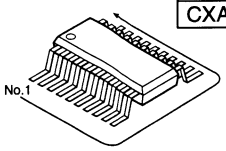
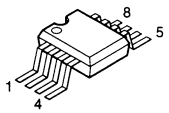
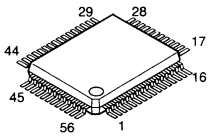
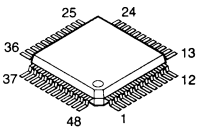
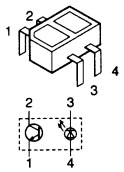
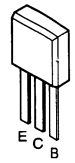
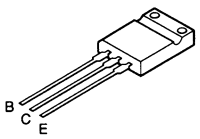
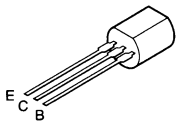
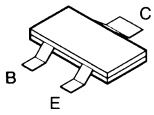
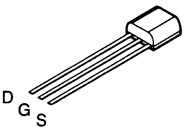
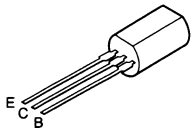
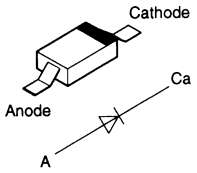
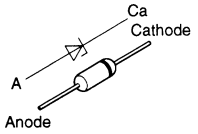
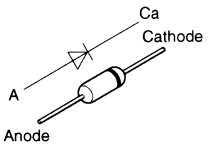
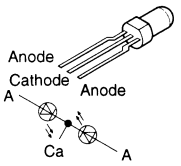
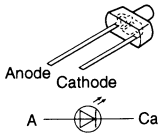
(REP2367B-P)

E OPERATION P.C.B.

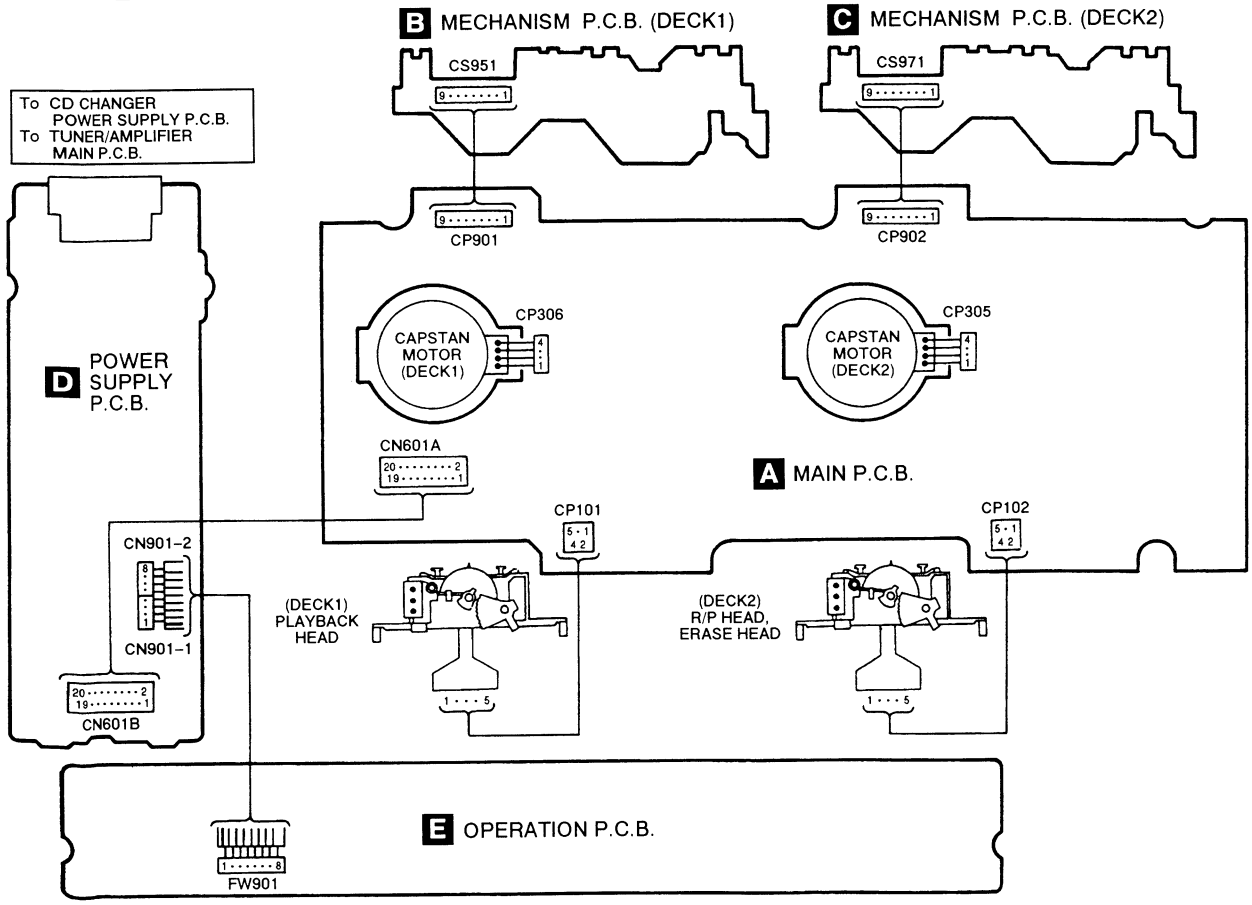


(REP2307B-S)

■ Type Illustration of IC's, Transistors and Diodes

MC14066BFEL 14PIN BU2090F-E2 16PIN CXA1102M-T4 16PIN 	BA7755AF 	M37471M4679F 	CXA1998AQT6 	0N2180RLC 	
2SD1450RSTA DTA113ZSATP 	2SD2137PQTA 	2SD592ASTA 2SB621ARSTA 		2SB1218ARTX 2SD1819ARTX 2SD2436STXRA DTA143EUT106 DTC114EUT106 DTC143EUT106 DTC144EUT106	2SJ164QTA 2SJ164RTA 
2SC3940AQSTA 	MA110TX 	MTZJ5R1BTA MTZJ5R6BTA MTZJ9R1BTA 	MA165TA MA723TA 	SPR505MDTT 	LNJ201LPQJA LNH801TPS0A1 

■ Wiring Connection Diagram



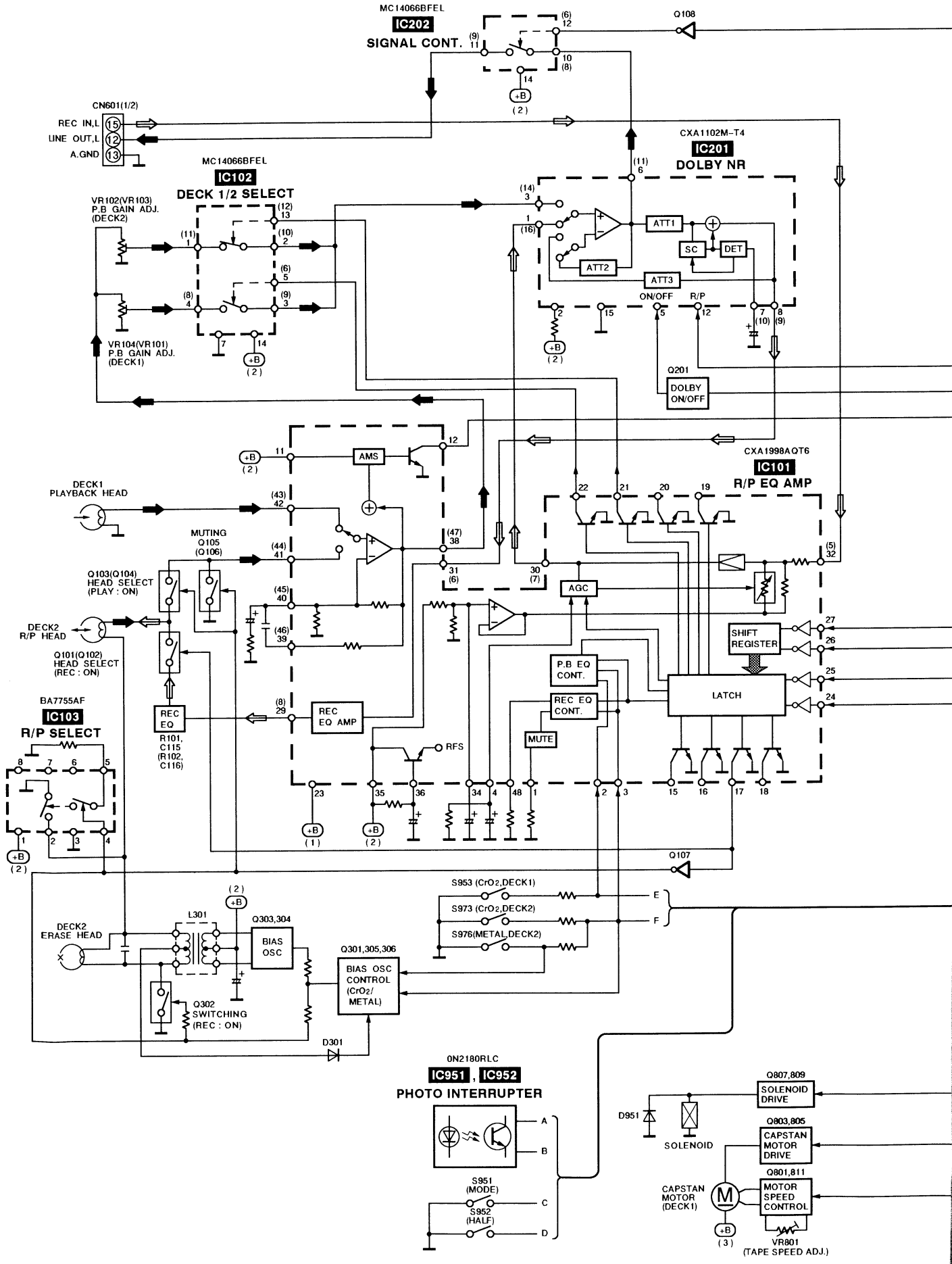
■ Terminal Function of IC's

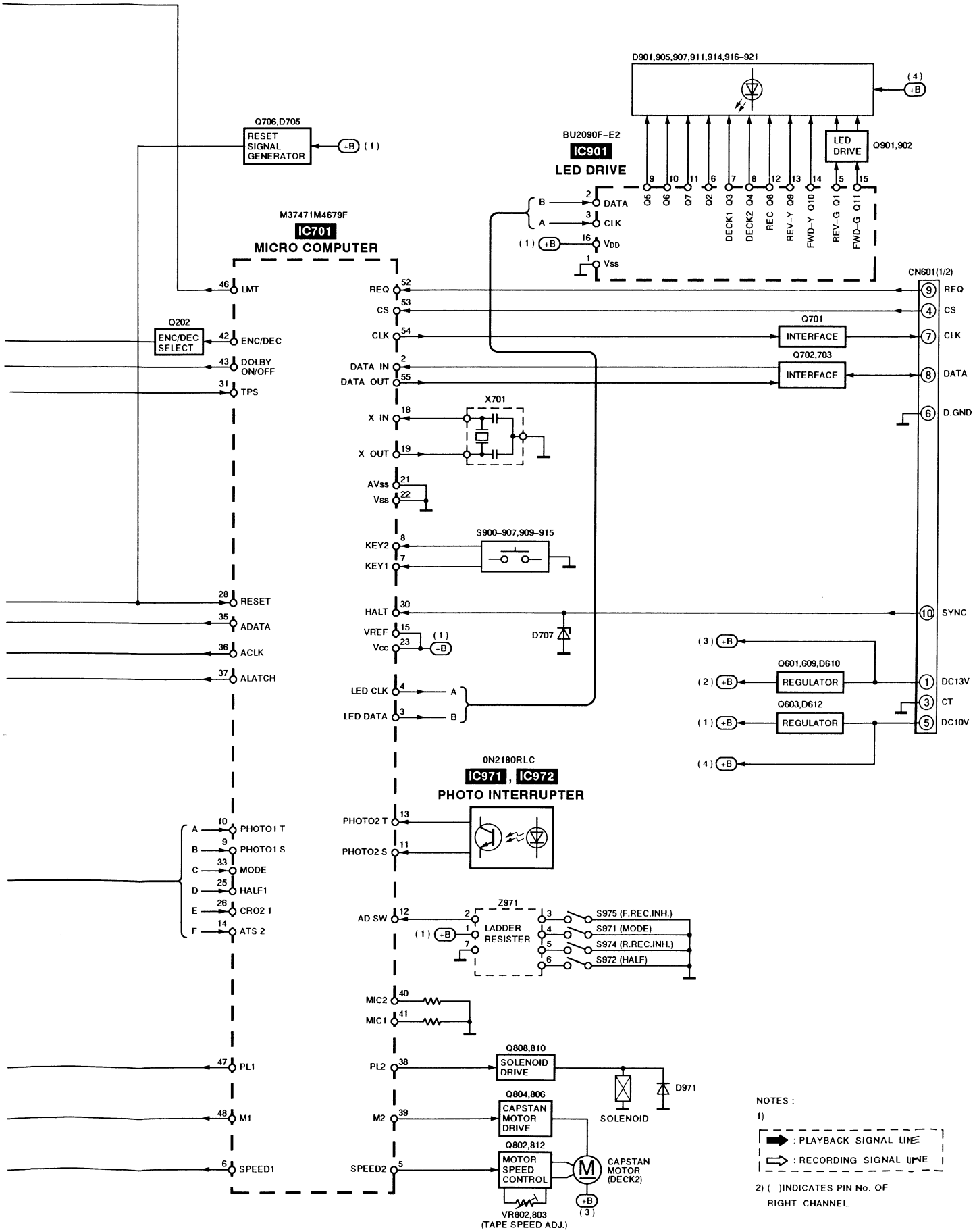
● IC701 (M37471M4679F)

Pin No.	Terminal Name	I/O	Function
1	NC	—	Not used
2	DATA IN	I	Serial data input
3	LED DATA	O	Serial data signal output for LED drive IC
4	LED CLK	O	Serial clock signal output for LED drive IC
5	SPEED2	O	DECK 2 motor speed control signal output
6	SPEED1	O	DECK 1 motor speed control signal output
7, 8	KEY1, 2	I	Operation switch signal input
9	PHOTO1S	I	DECK 1 supply side reel pulse input
10	PHOTO1T	I	DECK 1 take-up side reel pulse input
11	PHOTO2S	I	DECK 2 supply side reel pulse input
12	AD SW	I	DECK 2 mechanism switch signal input (Half, Mode, F. REC INH., R. REC INH.)
13	PHOTO2T	I	DECK 2 take-up side reel pulse input
14	ATS2	I	DECK 2 mechanism switch signal input (NORMAL/CrO2/METAL)
15	VREF	—	Reference voltage input terminal for A/D converter (+5 V)
16, 17	NC	—	Not used
18	XIN	I	Clock signal input (8 MHz)
19	XOUT	O	Clock signal output (8 MHz)
20	NC	—	Not used
21	AVSS	—	Connect to GND
22	VSS	—	GND terminal
23	VCC	—	Power supply (+5 V)
24	NC	—	Not used
25	HALF1	I	DECK 1 mechanism switch signal input (Half)
26	CRO21	I	DECK 1 mechanism switch signal input (NORMAL/CrO2)
27	NC	—	Not used
28	RESET	I	Reset signal input

Pin No.	Terminal Name	I/O	Function
29	NC	I	Not used
30	HALT	I	AC power source detect signal input
31	TPS	I	TPS signal input
32	TEST	I	Test mode select signal input
33	MODE	I	DECK 1 mechanism switch signal input (Mode)
34	—	—	Not used
35	ADATA	O	Serial data signal output for IC101
36	ACLK	O	Serial clock signal output for IC101
37	ALATCH	O	Serial latch signal output for IC101
38	PL2	O	DECK 2 solenoid drive signal output
39	M2	O	DECK 2 motor drive signal output
40, 41	MIC2, 1	O	Not used
42	ENC/DEC	O	DOLBY NR record/play mode select signal output
43	DOLBY ON/OFF	O	DOLBY NR ON/OFF control signal output
44, 45	NC	—	Not used
46	LMT	O	Muting control signal output
47	PL1	O	DECK 1 solenoid drive signal output
48	M1	O	DECK 1 motor drive signal output
49	—	—	Not used
50	NC	—	Not used
51	VSS	—	GND terminal
52	REQ	I	Serial communication request signal input
53	CS	I	Serial communication complete signal input
54	CLK	O	Serial communication clock signal output
55	DATA OUT	O	Serial communication data signal output
56	NC	—	Not used

■ Block Diagram




D901,905,907,911,914,916-921
(4)
+B
LED DRIVE
Q901,902
BU2090F-E2
IC901
LED DRIVE
Q706,D705
RESET SIGNAL GENERATOR
(1)
M37471M4679F
IC701
MICRO COMPUTER
DATA
CLK
VDD
Vss
Q5 Q6 Q7 Q2 DECK1 Q3 DECK2 Q4 REC Q8 REV-Y Q9 FWD-Y Q10 REV-G Q1 FWD-G Q11
CN601(1/2)
LMT
REQ
CS
CLK
DATA IN
DATA OUT
Q202
ENC/DEC SELECT
ENC/DEC
DOLBY ON/OFF
TPS
Q701
INTERFACE
Q702,703
INTERFACE
X701
X IN
X OUT
AVss
Vss
S900-907,909-915
KEY2
KEY1
RESET
ADATA
ACLK
ALATCH
HALT
VREF
Vcc
D707
LED CLK
LED DATA
A
B
SYNC
DC13V
CT
DC10V
Q601,609,D610
REGULATOR
Q603,D612
REGULATOR
0N2180RLC
IC971 , IC972
PHOTO INTERRUPTER
PHOTO2 T
PHOTO2 S
PHOTO1 T
PHOTO1 S
MODE
HALF1
CRO2 1
ATS 2
Z971
AD SW
LADDER RESISTER
S975 (F.REC.INH.)
S971 (MODE)
S974 (R.REC.INH.)
S972 (HALF)
MIC2
MIC1
PL1
M1
SPEED1
PL2
M2
SPEED2
Q808,810
SOLENOID DRIVE
Q804,806
CAPSTAN MOTOR DRIVE
Q802,812
MOTOR SPEED CONTROL
D971
SOLENOID
CAPSTAN MOTOR (DECK2)
VR802,803
(TAPE SPEED ADJ.)
NOTES :
1)
: PLAYBACK SIGNAL LINE
: RECORDING SIGNAL LINE
2) ( )INDICATES PIN No. OF RIGHT CHANNEL.

■ Measurements and Adjustments

Measurement Condition

- Dolby NR switch: OFF
- Make sure heads are clean.
- Make sure capstan and pressure roller are clean.
- Judgeable room temperature: 20 ± 5°C (68 ± 9°F)

Measuring instrument

- DC Power Supply
- AF Ocsillator

Measurement Condition

- Head azimuth adjustment (8 kHz, -20 dB): QZZCFM
- Tape speed adjustment (3 kHz, -10 dB): QZZCWAT
- Playback gain adjustment (315 Hz, 0 dB): QZZCFM
- Recording/playback frequency response adjustment:
  QZZCFM (315 Hz/0 dB, 315Hz/-20dB, 12.5 kHz~63 Hz/-20 dB)
  QZZCRA (Normal blank tape)
  QZZCRX (CrO2 blank tape)
  QZZCRZ (Metal blank tape)

Adjustment Points and Test Points

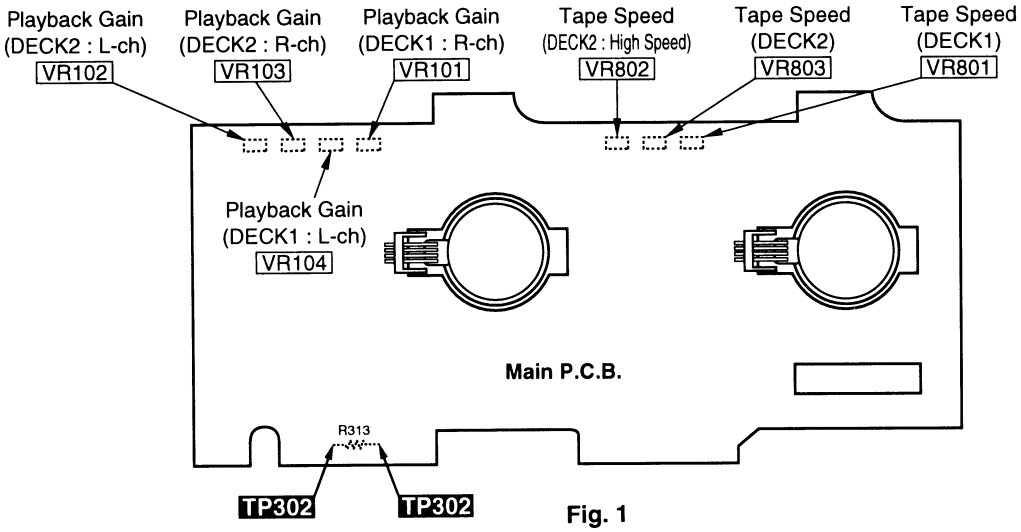

Playback Gain (DECK2 : L-ch) VR102
Playback Gain (DECK2 : R-ch) VR103
Playback Gain (DECK1 : R-ch) VR101
Tape Speed (DECK2 : High Speed) VR802
Tape Speed (DECK2) VR803
Tape Speed (DECK1) VR801
Playback Gain (DECK1 : L-ch) VR104
Main P.C.B.
R313
TP302
TP302

Fig. 1

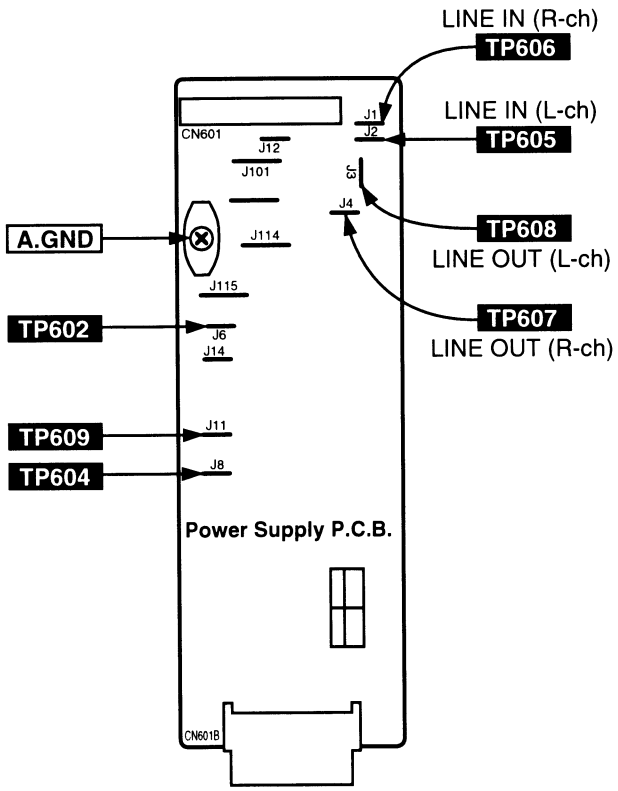


Fig. 2

HEAD AZIMUTH ADJUSTMENT (DECK 1/2)

1. Connect the measuring instrument as shown in Fig. 3.
2. Replace azimuth screws for both forward and reverse direction after removing the screw-locking bond left on the head base.
   Fine adjustment of azimuth can not be performed with remaining the bond on the head base.
   (Supply part No. of azimuth adjusting screw: **RHD17015**)
3. Playback the azimuth adjustment portion (8 kHz, -20 dB) of test tape (QZZCFM). Adjust the azimuth adjusting screw until the outputs of the L/R-ch are maximized. (Refer to Fig. 4.)
   Make sure that the difference in the peak level between the left and right channels does not exceed 0.5 dB.
4. Perform the same adjustment in reverse playback mode.

Check of the level difference forward and reverse directions

5. Playback the playback gain adjustment portion (315 Hz, 0 dB) of test tape (QZZCFM). Check if level difference between forward and reverse direction is within 1.5 dB.
6. After the adjustment, apply screwlock to the azimuth adjusting screw.

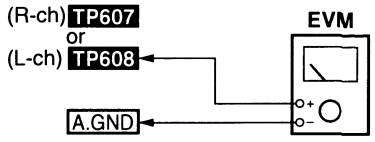


Fig. 3

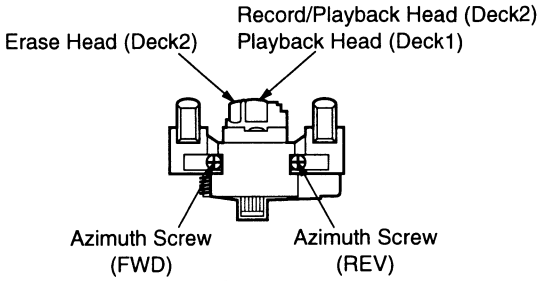


Fig. 4

TAPE SPEED ADJUSTMENT (DECK 1/2)

Note: When connecting the unit to other system components for testing, short the section between the test points TP609 and TP604 and turn on the entire system. (The unit is set to the TEST mode, and either the DECK1 or DECK2 indicators will blink.)

Normal speed (Standard value: 3000 ± 45 Hz)

1. Playback the middle portion of the test tape (QZZCWAT).
2. Adjust Deck 1 = **VR801** and Deck 2 = **VR803** for the output value shown below. (Refer to Fig. 1)

Adjustment target: 3000 ± 15 Hz (NORMAL speed)
Standard value: 3000 ± 45 Hz (NORMAL speed)

High speed [Set the unit to forward (FWD) mode.]

3. Playback the middle portion on the test tape (QZZCWAT).
4. Press the one touch tape edit (High) button.
   This will set the high speed mode.
5. At that time, check if the output from DECK 1 is within the standard value.

Standard value: 5000 ± 600 Hz (HIGH speed)

6. Adjust **VR802** so that the output frequency of DECK 2 is within **± 30 Hz** for the value of the output frequency of DECK 1. (Refer to Fig. 1)

Note: When connecting the unit to other system components, disconnect the short between the test points TP609 and TP604.

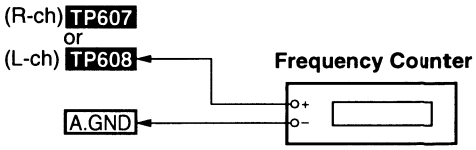


Fig. 5

PLAYBACK GAIN ADJUSTMENT (DECK1/2)

1. Find the start of the 315 Hz/0 dB section of the test tape (QZZCFM), insert the tape into Deck1 and 2, and play it back (FWD)
3. Adjust Deck 2 : **VR102** (L-ch) [**VR103** (R-ch)] and Deck 1 : **VR104** (L-ch) [**VR101** (R-ch)] so that the output is within the standard value. (Refer to Fig. 1)

Standard value : 280 mV ± 15 mV

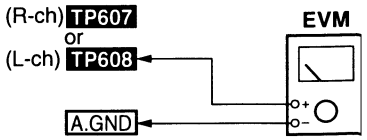


Fig. 6

ERASE CURRENT CONFIRMATION (DECK2)

1. Insert the blank tape into Deck2, and press the REC PAUSE button.
3. Check if the output at this time between the erase current confirmation point TP301 and TP302 (the output on both edged of R313) is within the standard value. (Refer to Fig. 7.)

Standard value		EVM reading
Normal tape	**: 85 ± 25 mA**	**(85 ± 25 mV)**
CrO2 tape	**: 150 ± 25 mA**	**(150 ± 25 mV)**
Metal tape	**: 185 ± 25 mA**	**(185 ± 25 mV)**

Note: The test tape is not required when confirming the erase current.

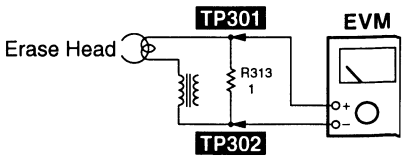


Fig. 7

Playback frequency response check (DECK 1/2)

Playback the 315 Hz/-20 dB and 12.5 kHz to 63 Hz/-20 dB sections of the test tape (QZZCFM) and then, using the 315 Hz/-20 dB playback output as a reference (0 dB), confirm that the playback frequency response is within the range shown in Fig. 9.

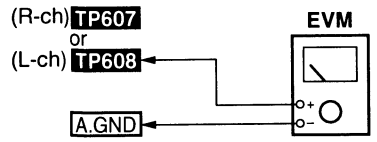


Fig. 8

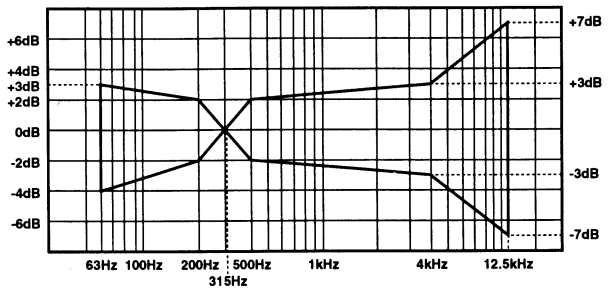


Fig. 9

Recording/playback frequency response and gain check (DECK 2)

Normal tape check

1. Insert a Normal-type blank tape (QZZCRA) into Deck 2.
2. Record signals at 50 Hz, 100 Hz, 200 Hz, 500 Hz, 1 kHz, 2 kHz, 10 kHz and 12.5 kHz (28 mV).
3. Set the playback frequency of the recorded signals at 1 kHz as the reference response (0 dB).
4. Playback the recorded signals to confirm that the output is within the range of the overall frequency response shown in Fig. 11.

CrO2/Metal tape check

5. Repeat steps 2 to 4 for each tape and confirm that the output for each is within the range of the overall frequency response shown in Fig. 12.

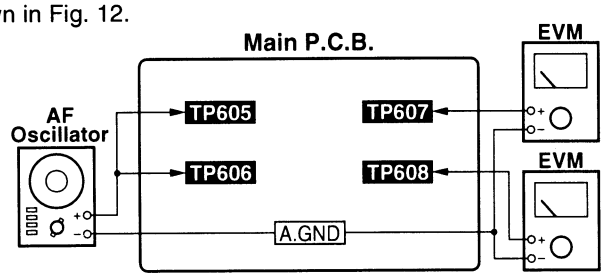
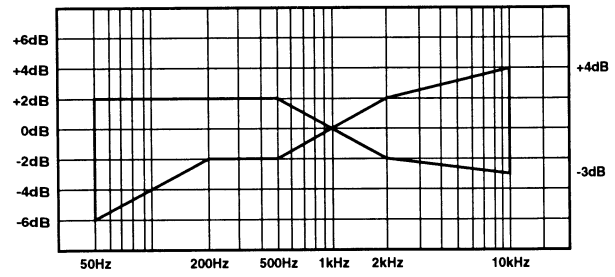


Fig. 10

Normal Tape Overall frequency response chart

(Dolby NR OFF)



(Dolby NR ON)

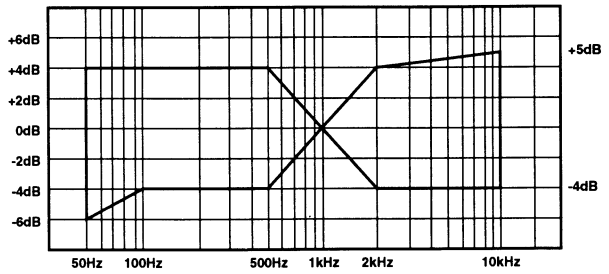
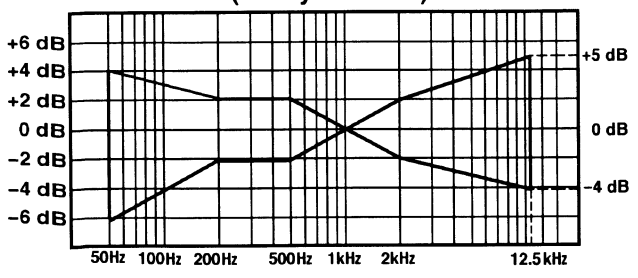


Fig. 11

CrO_2 and Metal Tape Overall frequency response chart

(Dolby NR OFF)



(Dolby NR ON)

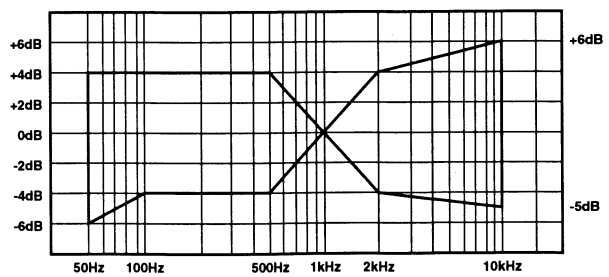


Fig. 12

■ Replacement Parts List

Notes: *Important safety notice:
Components identified by ⚠ mark have special characteristics important for safety.
Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used.
When replacing any of components, be sure to use only manufacture's specified parts shown in the parts list.
*All parts are supplied by MESA.

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	RKM0290-1K	CABINET	1	(K)
1	RKM0290-H	CABINET	1	(H)
2	RHD30007-K1	SCREW	4	
3	XTBS3+10JFZ1	SCREW	1	
4	REX0851	WIRE ASS'Y	1	
5	XTBS3+8JFZ1	SCREW	1	
6	RMN0432	HOLDER	1	
7	REZ0886	WIRE ASS'Y(8P)	1	
8	RMR1008-Q	LED HOLDER	2	
9	RFKGSEH600GH	FRONT PANEL ASS'Y	1	(H)
9	RFKGSEH600GK	FRONT PANEL ASS'Y	1	(K)
10	RFKLSEH600GB	CASSETTE HOLDER(DECK1)	1	
10-1	RUS757ZA	SPRING	2	
10-2	RDG0129-1	GEAR	2	
11	RFKLACH430GB	CASSETTE HOLDER(DECK2)	1	
11-1	RUS757ZA	SPRING	2	
11-2	RDG0129-1	GEAR	2	
12	SHG1654	RUBBER	3	
13	RGB0022-A	PANASONIC BADGE	1	
14	XTB3+10JFZ	SCREW	5	
15	RGL0349-Q	LENS1	1	
16	RGL0350-Q	LENS2	1	
17	RJR0113	CONNECTOR(CP305/306)	2	
18	RKF0507-1K	CASSETTE PANEL(DECK2)	1	(K)
18	RKF0507-H	CASSETTE PANEL(DECK2)	1	(H)
19	RKW0489A-Q	WINDOW 1	1	
20	RKW0490A-Q	WINDOW 2	1	
21	RMB0474	SPRING	2	
22	RMQ0577A-2	FRAME	1	
23	RMR0909-X	P. C. B. SUPPORT	1	
24	RSC0453	SHIELD PLATE 1	1	
25	RSC0454	SHIELD PLATE 2	1	
26	XTBS26+8J	SCREW	7	
27	RKF0506A-H	CASSETTE PANEL(DECK1)	1	(H)
27	RKF0506A-1K	CASSETTE PANEL(DECK1)	1	(K)
101	RED0037	HEAD BLOCK(R/P)	1	
101-1	RHD17015	SCREW	1	
102	RED0038	HEAD BLOCK(P. B)	1	
102-1	RHD17015	SCREW	1	
103	RDG0300	REEL TABLE ASS'Y	4	
104	RDG0301	GEAR	2	
105	RDK0026	GEAR	2	
107	RDV0033-1	BELT 1	2	
108	RDV0034	BELT 2	2	
110	RUW147ZA	SPRING	2	
111	RMB0400	SPRING	4	
112	RMB0403	SPRING	2	
113	RMB0404	SPRING	2	
114	RMB0406	SPRING	2	
115	RMB0408	SPRING	2	
116	RML0370	LEVER	2	
117	RML0371	LEVER	2	
118	RML0372	LEVER	2	
119	RML0374	LEVER	2	
120	RMM0131	ROD	2	
121	RMM0133	ROD	2	
122	RMQ0519	REEL CAP	4	
123	RMS0398-1	SHAFT	2	
124	RSJ0003	PLUNGER ASS'Y	2	
125	RUS609ZC	SPRING	2	
126	RXF0049	FLYWHEEL ASS'Y	2	
127	RXF0050	FLYWHEEL ASS'Y	2	
128	RXG0040	GEAR	4	
129	RMK0283	SUB CHASSIS	1	
130	RXL0124	PINCH ROLLER ASS'Y	2	
130-1	RMB0401	SPRING	1	
131	RXL0125	PINCH ROLLER ASS'Y	2	
131-1	RMB0402	SPRING	1	
132	RXL0126	ARM GEAR	2	
133	RXQ0412	CHASSIS ASS'Y	2	
133-1	RMB0405	SPRING	1	
133-2	RMM0132	ROD	1	
134	REM0055-1	MOTOR ASS'Y	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
135	RHD26022	SCREW	2	
136	XTW2+5L	SCREW	4	
137	XTW26+10S	SCREW	6	
138	XYC2+JF17	SCREW	2	
140	RFKJSCH770EK	MAIN CHASSIS ASS'Y	1	
C101, 02	ECUV1H681KBN	50V 680P	2	
C103, 04	ECUV1H821KBN	50V 820P	2	
C109, 10	ECQB1H183JF3	50V 0.018U	2	
C111, 12	ECEA0JKA470B	6.3V 47U	2	
C113, 14	ECEA1EKA4R7B	25V 4.7U	2	
C115, 16	ECUV1H471KBN	50V 470P	2	
C117, 18	ECUV1H331KBN	50V 330P	2	
C119, 20	ECEA1HKA010B	50V 1U	2	
C123, 24	ECEA1EKA4R7B	25V 4.7U	2	
C125, 26	ECUV1H332KBN	50V 3300P	2	
C129	ECEA1AKA220B	10V 22U	1	
C130	RCE1AKA101BG	10V 100U	1	
C131-34	ECUV1H471KBN	50V 470P	4	
C135, 36	ECEA1HKA010B	50V 1U	2	
C137	ECEA1HKA0R1B	50V 0.1U	1	
C138	ECUV1E473KBN	25V 0.047U	1	
C139	ECEA0JKA470B	6.3V 47U	1	
C140	RCE1CKA100BG	16V 10U	1	
C141	ECEA1HKA010B	50V 1U	1	
C142	ECUV1E104ZFN	25V 0.1U	1	
C143, 44	ECUV1H471KBN	50V 470P	2	
C150	RCE1AKA101BG	10V 100U	1	
C203, 04	ECEA1EKA4R7B	25V 4.7U	2	
C205, 06	ECEA1HKA010B	50V 1U	2	
C207, 08	ECUV1H182KBN	50V 1800P	2	
C211, 12	ECUV1H152KBN	50V 1500P	2	
C213, 14	ECEA1EKA4R7B	25V 4.7U	2	
C215, 16	RCE1CKA100BG	16V 10U	2	
C217, 18	ECEA1HKAR68B	50V 0.68U	2	
C219	ECEA1CKA101B	16V 100U	1	
C220	RCE1ARC471BG	10V 470U	1	
C221, 22	ECEA1HKAR68B	50V 0.68U	2	
C223	ECEA1EKA4R7B	25V 4.7U	1	
C225, 26	ECEA1EKA4R7B	25V 4.7U	2	
C239, 40	ECUV1H681KBN	50V 680P	2	
C241	ECUV1H103KBN	50V 0.01U	1	
C243, 44	ECUV1H682KBN	50V 6800P	2	
C302	ECEA2AN2R2SB	100V 2.2U	1	
C303	ECQP2E682JZT	250V 6800P	1	
C304	RCE1AKA101BG	10V 100U	1	
C305	ECEA1HKA0R1B	50V 0.1U	1	
C306	ECQB1H393JF3	50V 0.039U	1	
C307	ECUV1H102KBN	50V 1000P	1	
C308	ECUV1H332KBN	50V 3300P	1	
C309	ECEA0JKA470B	6.3V 47U	1	
C310, 11	ECUV1H103KBN	50V 0.01U	2	
C323	ECUV1H102KBN	50V 1000P	1	
C606	ECA1EM101B	25V 100U	1	
C607	ECA1AM471B	16V 470U	1	
C609	ECBT1E103ZF5	25V 0.01U	1	
C611	ECEA1HKA010B	50V 1U	1	
C613	RCE1AKA470BG	10V 47U	1	
C614	ECBT1E103ZF5	25V 0.01U	1	
C701	ECUV1H103KBN	50V 0.01U	1	
C702	ECEA0JKA101B	6.3V 100U	1	
C705	ECUV1E103ZFN	25V 0.01U	1	
C706	RCE1HKA3R3BG	50V 3.3U	1	
C707	ECUV1E103ZFN	25V 0.01U	1	
C901	ECBT1H471KB5	50V 470P	1	
C902	ECBT1H104ZF5	50V 0.1U	1	
C903	ECBT1H471KB5	50V 470P	1	
CN601	RJS2A5519-1	CONNECTOR(19P)	1	
CN601A	RJT077K20	CONNECTOR(20P)	1	
CN601B	RJU077K20	CONNECTOR(20P)	1	
CN901-1	RJS1A6604T1	CONNECTOR(4P)	1	
CN901-2	RJS1A6604T1	CONNECTOR(4P)	1	
CP101, 02	RJS1A6805	CONNECTOR(5P)	2	

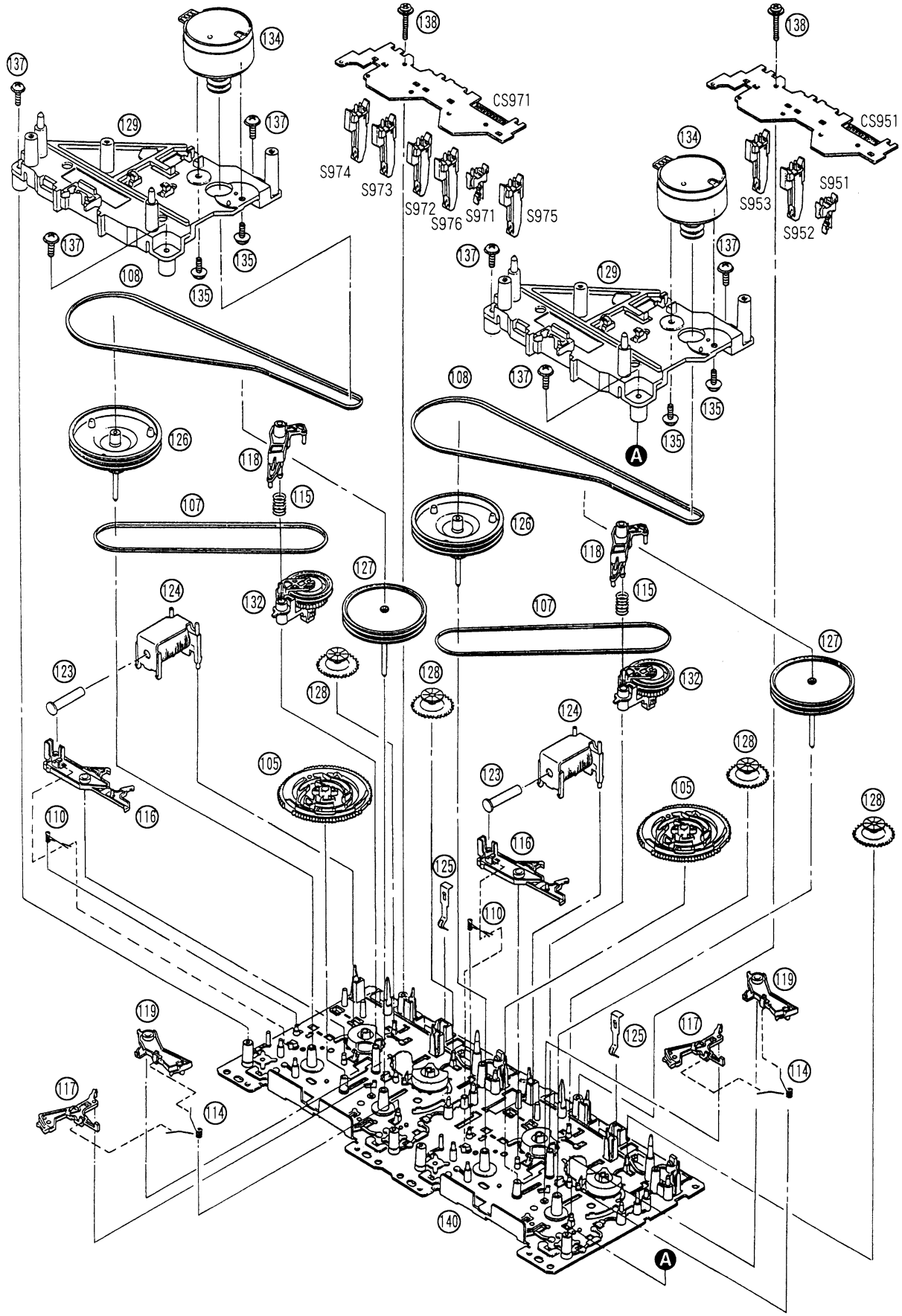
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
CP901, 02	RJT071H09A	CONNECTOR(9P)	2	
CS951	RJU071H09M	CONNECTOR(9P)	1	
CS971	RJU071H09M	CONNECTOR(9P)	1	
D301	MA110TX	DIODE	1	
D609	MA723TA	DIODE	1	
⚠ D610	MTZJ9R1BTA	DIODE	1	
⚠ D612	MTZJ5R6BTA	DIODE	1	
D613	MA723TA	DIODE	1	
D616	MA165TA	DIODE	1	
D705, 06	MA110TX	DIODE	2	
⚠ D707	MTZJ5R1BTA	DIODE	1	
D708-10	MA110TX	DIODE	3	
D901	LNJ201LPQJA	LED	1	
D904	MA165TA	DIODE	1	
D905	SPR505MDTT	LED	1	
D906	MA165TA	DIODE	1	
D907	SPR505MDTT	LED	1	
D911	LNJ201LPQJA	LED	1	
D914	LNJ201LPQJA	LED	1	
D916-21	LNH801TPS0A1	LED	6	
D951	MA165	DIODE	1	
D971	MA165	DIODE	1	
E1	SNE1004-2	EARTH TERMINAL	1	
IC101	CXA1998AQT6	IC	1	
IC102	MC14066BFEL	IC	1	
IC103	BA7755AF	IC	1	
IC201	CXA1102M-T4	IC	1	
IC202	MC14066BFEL	IC	1	
IC701	M37471M4679F	IC	1	
IC901	BU2090F-E2	IC	1	
IC951, 52	ON2180RLC	IC	2	
IC971, 72	ON2180RLC	IC	2	
L201, 02	ELELN103KA	COIL	2	
L301	RL08B006-K	COIL	1	
L302	RLQZB101KT-D	COIL	1	
L701	RLQA100JT-Y	COIL	1	
L702	RLBN102V-Y	COIL	1	
Q101, 02	2SJ164RTA	TRANSISTOR	2	
Q103, 04	2SJ164QTA	TRANSISTOR	2	
Q105, 06	2SD1819ARTX	TRANSISTOR	2	
Q107	DTA143EUT106	TRANSISTOR	1	
Q108	DTC143EUT106	TRANSISTOR	1	
Q201, 02	DTA143EUT106	TRANSISTOR	2	
Q301	2SD1819ARTX	TRANSISTOR	1	
Q302	2SD2436STXRA	TRANSISTOR	1	
Q303, 04	2SD1450RSTA	TRANSISTOR	2	
Q305, 06	DTC144EUT106	TRANSISTOR	2	
⚠ Q601	2SD2137PQTA	TRANSISTOR	1	
⚠ Q603	2SC3940AQSTA	TRANSISTOR	1	
⚠ Q609	2SD2137PQTA	TRANSISTOR	1	
Q701-03	2SD1819ARTX	TRANSISTOR	3	
Q706	DTC114EUT106	TRANSISTOR	1	
Q801, 02	2SB1218RTW	TRANSISTOR	2	
Q803, 04	2SD592ASTA	TRANSISTOR	2	
Q805, 06	DTA143EUT106	TRANSISTOR	2	
Q807, 08	2SB621ARSTA	TRANSISTOR	2	
Q809-12	DTC143EUT106	TRANSISTOR	4	
Q901, 02	DTA113ZSATP	TRANSISTOR	2	
R101, 02	ERJ6GEYJ562V	1/10W 5.6K	2	
R103, 04	ERJ6GEYJ104V	1/10W 100K	2	
R105, 06	ERJ6GEYJ334V	1/10W 330K	2	
R107, 08	ERJ6GEYJ103V	1/10W 10K	2	
R109, 10	ERJ6GEYJ102Z	1/10W 1K	2	
R111	ERJ6GEYJ820V	1/10W 82	1	
R112	ERJ8GEYJ820V	1/8W 82	1	
R113	ERJ6GEYJ123V	1/10W 12K	1	
R114	ERJ6GEYJ273V	1/10W 27K	1	
R117	ERJ6GEYJ102Z	1/10W 1K	1	

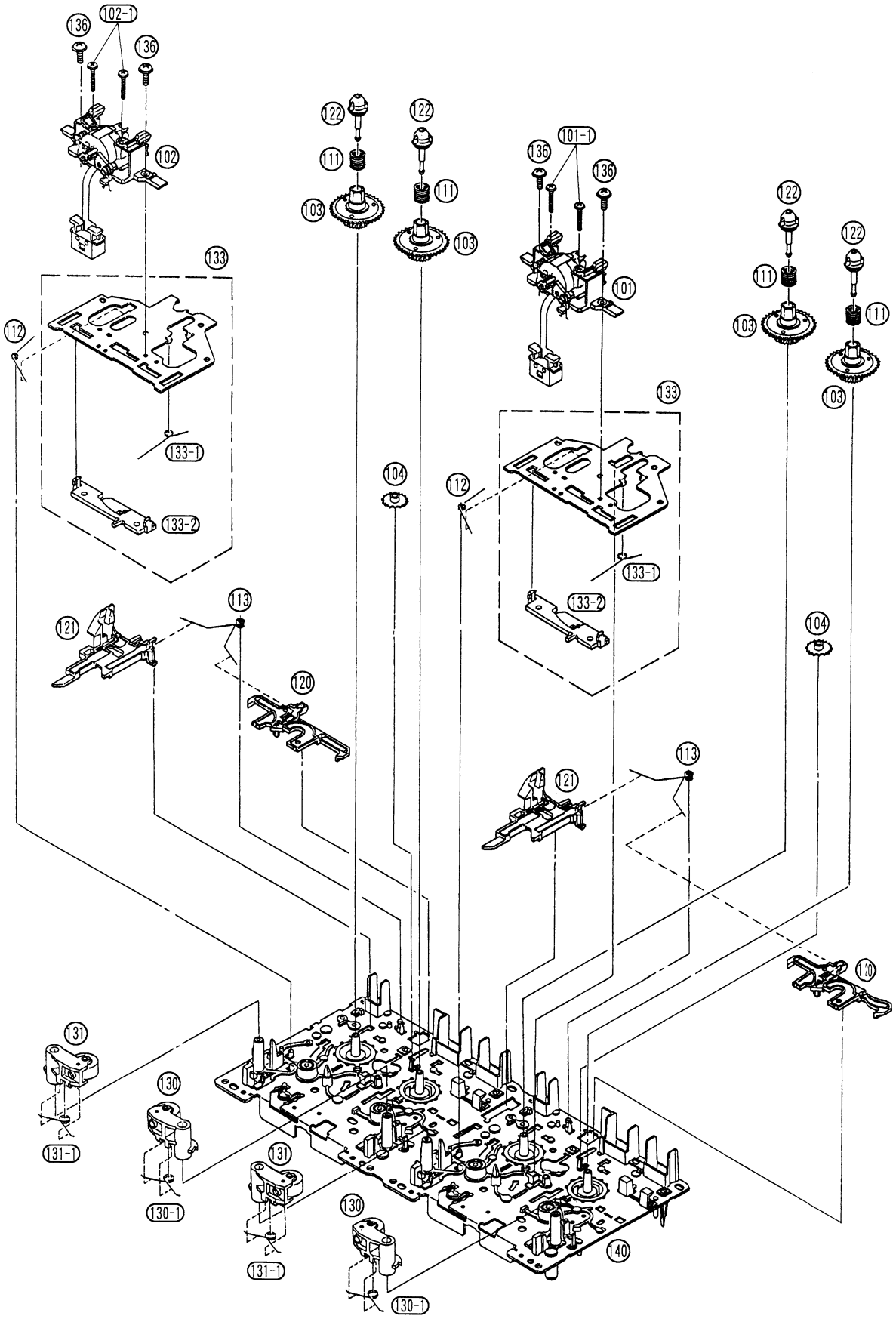
Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R118, 19	ERDS2FJ220	1/4W 22	2	
R120	ERJ6GEYJ104V	1/10W 100K	1	
R121, 22	ERJ6GEYJ103V	1/10W 10K	2	
R125	ERJ6GEYJ104V	1/10W 100K	1	
R126	ERJ6GEYJ223V	1/10W 22K	1	
R127	ERJ6GEYJ472V	1/10W 4.7K	1	
R130	ERJ6GEYJ475V	1/10W 4.7M	1	
R131	ERJ6GEYJ334V	1/10W 330K	1	
R132	ERJ6GEYJ273V	1/10W 27K	1	
R133	ERJ6GEYJ333V	1/10W 33K	1	
R134	ERJ6GEYJ392V	1/10W 3.9K	1	
R135	ERJ6GEYJ682V	1/10W 6.8K	1	
R136, 37	ERJ6GEYJ222V	1/10W 2.2K	2	
R138	ERJ6GEYJ472V	1/10W 4.7K	1	
R139, 40	ERJ6GEYJ473V	1/10W 47K	2	
R141	ERJ8GEYJ101V	1/8W 100	1	
R142	ERJ6GEYJ101Z	1/10W 100	1	
R143	ERDS2FJ101	1/4W 100	1	
R144	ERJ6GEYJ101Z	1/10W 100	1	
R147-50	ERJ6GEYJ562V	1/10W 5.6K	4	
R151, 52	ERJ6GEYJ104V	1/10W 100K	2	
R153, 54	ERJ6GEYJ681V	1/10W 680	2	
R157, 58	ERJ6GEYJ223V	1/10W 22K	2	
R207, 08	ERJ6GEYJ473V	1/10W 47K	2	
R209, 10	ERJ6GEYJ102Z	1/10W 1K	2	
R211, 12	ERJ6GEYJ103V	1/10W 10K	2	
R213, 14	ERJ6GEYJ332V	1/10W 3.3K	2	
R215, 16	ERJ6GEYJ123V	1/10W 12K	2	
R217, 18	ERJ6GEYJ222V	1/10W 2.2K	2	
R219	ERJ6GEYJ433V	1/10W 43K	1	
R220	ERDS2FJ220	1/4W 22	1	
R221, 22	ERJ6GEYJ101Z	1/10W 100	2	
R223, 24	ERJ6GEYJ103V	1/10W 10K	2	
R225, 26	ERJ6GEYJ473V	1/10W 47K	2	
R230, 31	ERJ6GEYJ102Z	1/10W 1K	2	
R232	ERJ6GEYJ103V	1/10W 10K	1	
R233, 34	ERJ6GEYJ101Z	1/10W 100	2	
R235, 36	ERJ6GEYJ103V	1/10W 10K	2	
R237	ERDS2FJ220	1/4W 22	1	
R301	ERJ6GEYJ103V	1/10W 10K	1	
R302	ERJ6GEYJ182V	1/10W 1.8K	1	
R303	ERJ6GEYJ222V	1/10W 2.2K	1	
R304	ERJ6GEYJ153V	1/10W 15K	1	
R305	ERJ6GEYJ183V	1/10W 18K	1	
R306	ERJ6GEYJ333V	1/10W 33K	1	
⚠ R307	ERDS1FJ2R2	1/2W 2.2	1	
R308	ERJ6GEYJ102Z	1/10W 1K	1	
R309-11	ERJ6GEYJ472V	1/10W 4.7K	3	
R313	ERDS2TJ1R0T	1/4W 1	1	
R603	ERDS2TJ221T	1/4W 220	1	
⚠ R605	ERD2FCJ4R7	1/4W 4.7	1	
⚠ R607	ERD2FCG100	1/4W 10	1	
R608, 09	ERDS2FJ101	1/4W 100	2	
R610	ERDS2TJ152T	1/4W 1.5K	1	
R628, 29	ERDS2TJ1R0T	1/4W 1	2	
R630	ERQ16NKWR33E	1/6W 0.33	1	
R632	ERDS2TJ473T	1/4W 47K	1	
R701, 02	ERJ6GEYJ103V	1/10W 10K	2	
R703	ERJ6GEYJ562V	1/10W 5.6K	1	
R704	ERJ6GEYJ472V	1/10W 4.7K	1	
R705	ERJ6GEYJ473V	1/10W 47K	1	
R708	ERJ6GEYJ472V	1/10W 4.7K	1	
R710	ERJ6GEYJ102Z	1/10W 1K	1	
R711	ERJ6GEYJ104V	1/10W 100K	1	
R712, 13	ERJ6GEYJ683V	1/10W 68K	2	
R714, 15	ERJ6GEYJ473V	1/10W 47K	2	
R718	ERJ8GEYJ683V	1/8W 68K	1	
R720	ERJ6GEYJ683V	1/10W 68K	1	
R721	ERJ6GEYJ472V	1/10W 4.7K	1	
R723, 24	ERJ6GEYJ102Z	1/10W 1K	2	
R725, 26	ERJ6GEYJ222V	1/10W 2.2K	2	
R727	ERJ6GEYJ472V	1/10W 4.7K	1	
R728	ERJ6GEYJ103V	1/10W 10K	1	
R729	ERJ6GEYJ472V	1/10W 4.7K	1	
R730	ERJ6GEYJ222V	1/10W 2.2K	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R732	ERJ6GEYJ104V	1/10W 100K	1	
R735	ERJ6GEYJ472V	1/10W 4.7K	1	
R738	ERJ6GEYJ102Z	1/10W 1K	1	
R739	ERJ6GEYJ272V	1/10W 2.7K	1	
R741	ERJ6GEYJ223V	1/10W 22K	1	
R742	ERJ6GEYJ103V	1/10W 10K	1	
R743	ERJ6GEYJ473V	1/10W 47K	1	
R744	ERJ6GEYJ102Z	1/10W 1K	1	
R745	ERJ6GEYJ101Z	1/10W 100	1	
R746	ERJ6GEYJ103V	1/10W 10K	1	
R747	ERJ6GEYJ102Z	1/10W 1K	1	
R801	ERJ6GEYJ184V	1/10W 180K	1	
R802	ERJ6GEYJ561V	1/10W 560	1	
R803, 04	ERJ6GEYJ103V	1/10W 10K	2	
R805	ERJ6GEYJ392V	1/10W 3.9K	1	
R806	ERJ6GEYJ103V	1/10W 10K	1	
R807	ERJ6GEYJ184V	1/10W 180K	1	
R808	ERJ6GEYJ392V	1/10W 3.9K	1	
R809	ERJ6GEYJ822V	1/10W 8.2K	1	
R810, 11	ERJ6GEYJ103V	1/10W 10K	2	
R812	ERJ6GEYJ561V	1/10W 560	1	
R813, 14	ERJ6GEYJ471V	1/10W 470	2	
R817	ERJ6GEYJ105V	1/10W 1M	1	
R818	ERDS2FJ2R2	1/4W 2.2	1	
R819	ERJ6GEYJ105V	1/10W 1M	1	
R820	ERDS2FJ2R2	1/4W 2.2	1	
R821	ERJ6GEYJ102Z	1/10W 1K	1	
R822	ERJ6GEYJ101Z	1/10W 100	1	
R823, 24	ERJ6GEYJ561V	1/10W 560	2	
R900	ERDS2TJ821T	1/4W 820	1	
R901	ERDS2FJ102	1/4W 1K	1	
R902	ERDS2TJ122T	1/4W 1.2K	1	
R903	ERDS2TJ152T	1/4W 1.5K	1	
R904	ERDS2TJ182T	1/4W 1.8K	1	
R905	ERDS2FJ222	1/4W 2.2K	1	
R906	ERDS2TJ332T	1/4W 3.3K	1	
R907	ERDS2FJ472	1/4W 4.7K	1	
R908	ERDS2FJ682	1/4W 6.8K	1	
R909	ERDS2TJ123T	1/4W 12K	1	
R910	ERDS2TJ223T	1/4W 22K	1	
R911	ERDS2TJ683T	1/4W 68K	1	
R912	ERDS2TJ561T	1/4W 560	1	
R914-17	ERDS2FJ102	1/4W 1K	4	
R918	ERDS2TJ391T	1/4W 390	1	
R919	ERDS2TJ561T	1/4W 560	1	
R922	ERDS2TJ391T	1/4W 390	1	
R923	ERDS2TJ561T	1/4W 560	1	
R924	ERDS2TJ821T	1/4W 820	1	
R925	ERDS2FJ102	1/4W 1K	1	
R926, 27	ERDS2TJ473T	1/4W 47K	2	
R928, 29	ERDS2TJ331T	1/4W 330	2	
R930, 31	ERDS2TJ152T	1/4W 1.5K	2	
R951	ERDS2FJ681	1/4W 680	1	
R953, 54	ERDS2FJ393	1/4W 39K	2	
R971	ERDS2FJ681	1/4W 680	1	
R973, 74	ERDS2FJ393	1/4W 39K	2	
RJ1-J3	W5E-18H	CHIP JUMPER	3	
RJ504-06	ERJ6GEY0R00Z	CHIP JUMPER	3	
RJ507	ERJ8GEY0R00V	CHIP JUMPER	1	
S900-07	EVQPTD05Q	SW	8	
S909-15	EVQPTD05Q	SW	7	
S951	RSH1A018-1U	SW	1	
S952, 53	RSH1A019-2U	SW	2	
S971	RSH1A018-1U	SW	1	
S972-76	RSH1A019-2U	SW	5	
VR101-04	EVNDCAA03B24	VR	4	
VR801-03	EVNDCAA03B53	VR	3	
X701	RSXY8M00M06T	OSCILLATOR	1	
Z971	EXBF7L355SYV	COMPONENT COMBINATION	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks

■ Mechanism Parts Location




136
102-1
136
102
133
112
133-1
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130-1
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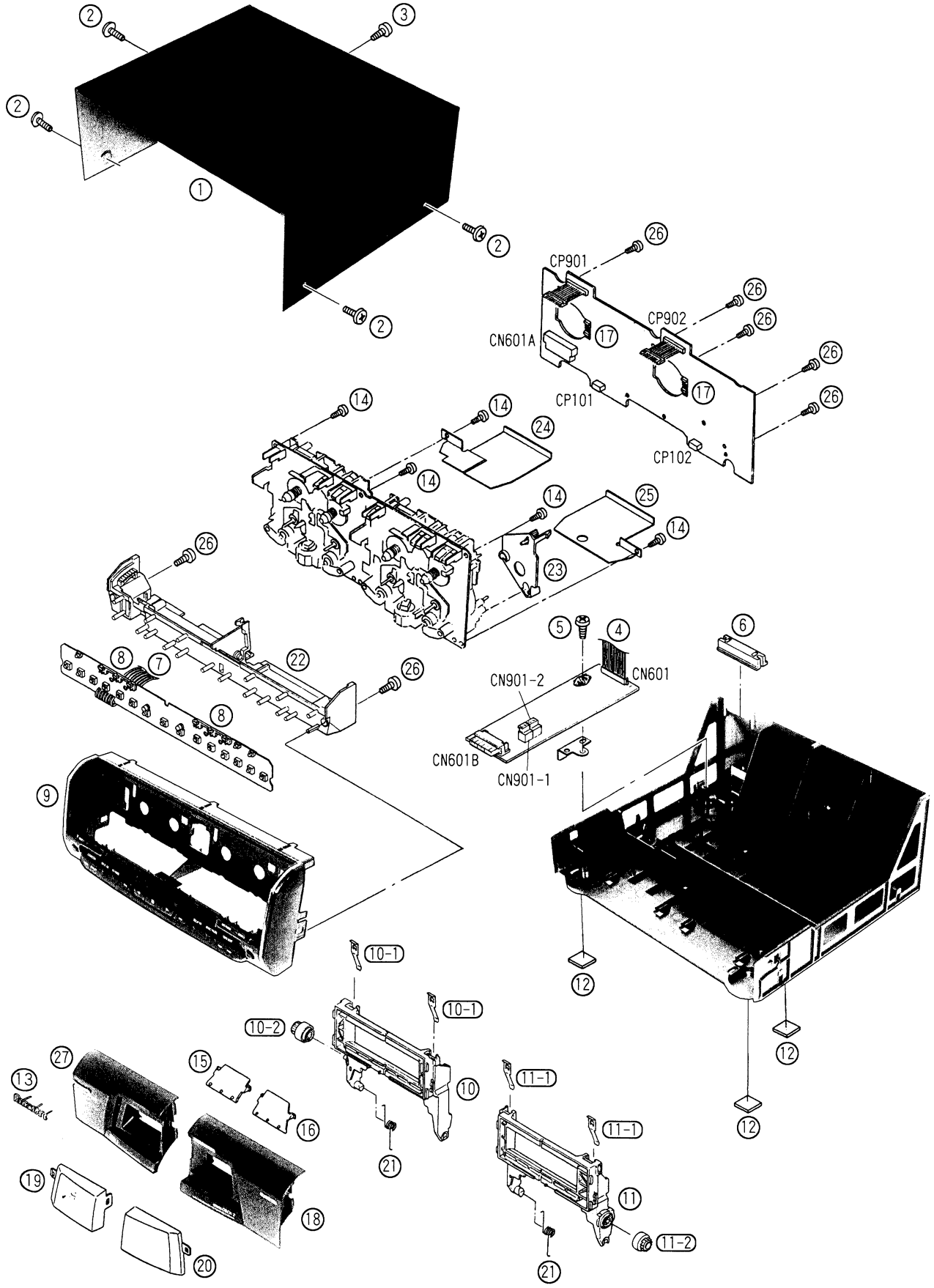
■ Cabinet Parts Location



Printed in Japan
F971203900HS/KH

ORDER NO. AD9802041A8

Service Manual

Cassette Deck

Stereo Cassette Deck

RS-EH600

Colour
(H) ..... Gray Type

Area
(E) ..... Europe, Asia, Latin America, Middle East, Africa, New Zealand and Australia.

Please file and use this manual together with the service manual for Model No. RS-EH600, Order No. AD9712165C3.

Notes:
- This simplified service manual is provided to indicate the differences between the original No. RS-EH600 (GK) and the subsequent model No. RS-EH600 (E).
- All parts are supplied by MESA.

DOLBY B NR *1

Because of unique interconnecting cables, when a component requires service, send or bring in the entire system.

*1 : Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby" and the double-D symbol DD are trade marks of Dolby Laboratories Licensing Corporation.

*2 : For Europe...Made in PAES
For others...Made in Singapore

System	SC-EH600	SC-EH500	
		For Europe	For others
Sound Processor	SH-EH600	SH-EH500	SH-EH500
Tuner / Amplifier	SA-EH600	SA-EH500	SA-EH500
CD Changer	SL-EH600	—	—
CD Player	—	SL-EH500	SL-EH500
Cassette Deck	**RS-EH600**	**RS-EH600**	**RS-EH600**
Front Speakers*2	SB-EH600	SB-EH600	SB-EH500
Center Speaker*2	SB-PC600	—	SB-PC600
Surround Speakers*2	SB-PS600	—	SB-PS600

■ Replacement Parts List

Ref. No.	Change of Parts No. RS-EH600(GK) ➡ RS-EH600(E)		Part Name & Description	Remarks
CABINET PART(S)				
13	RGB0022-A	**RGB0025-A**	TECHNICS BADGE	

⚠WARNING
This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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F9802O6000HS/YI

ORDER NO. AD9809172S8

Service Manual

Supplement

Cassette Deck

RS-EH60
RS-EH600
RS-EH1000

This document is supplementary to the following Service Manuals:

Model No.	Area Code	Order No.	Colour
RS-EH60	GK	AD9612222C3	K
	E,EP	AD9703029C8	
RS-EH600	GK,GCS	AD9712165C3	K,H
	E	AD9802041A8	H
RS-EH1000	GK	AD9807139C3	S

Colour(s)

(K) ..... Black Type
(H) ..... Gray Type
(S) ..... Silver Type

Area(s)

(E),(EP) .. Europe, Russia, Asia, Latin America, Middle East, Africa and Oceania.
(GK)..... China.
(GCS) ..... Asia, Latin America, Middle East, Africa and Oceania.

Purpose

In order to improve the Microcomputer in reliability of Performance at the time the Power switch is set to ON.

Replacement Parts List

Ref. No.	Change of Parts No. Original	Change of Parts No. Supplement	Part Name & Description	Remarks
DIODE(S)				
D701	———	**MA741TX**	DIODE	

⚠WARNING

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Panasonic®

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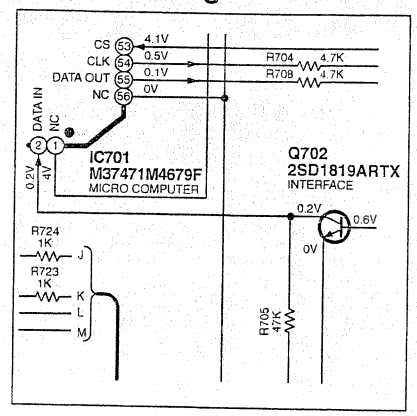
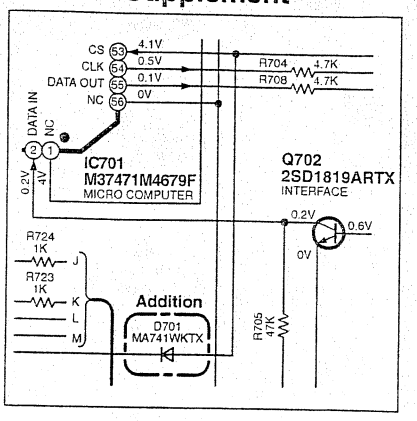
Schematic Diagram

Original

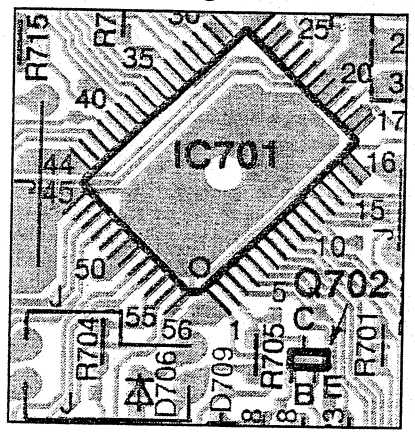


Supplement

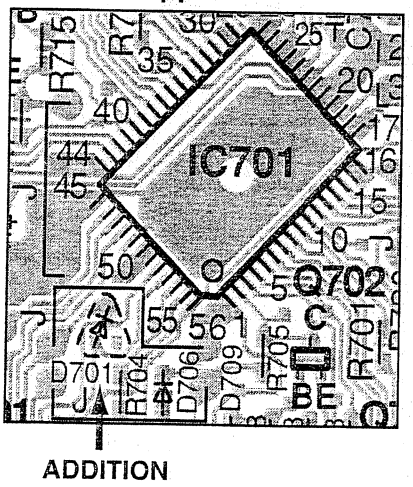


Printed Circuit Board Diagram

Original



Supplement



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